

FORESTS



SHUSSBOOMING ON MT. HOOD . . See page 12

THE SILENT SABOTEURS See page 8

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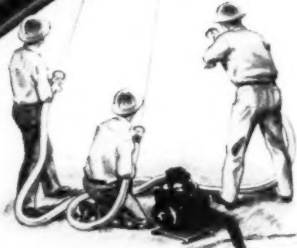
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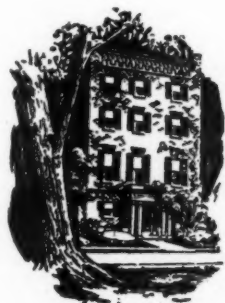
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VOLUME 59
NUMBER 2
FEBRUARY, 1953



Editor

James B. Craig

Assistant Editor

Keith R. McCarthy

Editorial Assistant

Dorothy B. Thompson

Art Director

James J. Fisher

Director of Advertising

Fred E. Hornaday

Advertising Representatives

George W. Stearns
420 Lexington Avenue
New York City

Harry W. Brown
333 North Michigan Avenue
Chicago, Illinois

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The American Forestry Association, publishers of *American Forests*, is a national organization— independent and non-political in character—for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation. Its purpose is to create an enlightened public appreciation of these resources and the part they play in the social and economic life of the nation. Created in 1875, it is the oldest national forest conservation organization in America.

American FORESTS

PUBLISHED BY THE AMERICAN FORESTRY ASSOCIATION

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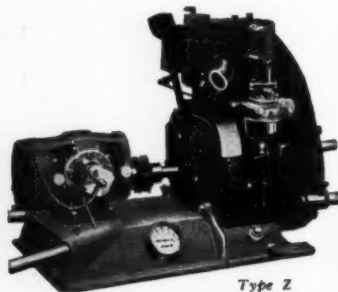
The daring young man on our cover isn't sailing off the end of the earth. He's doing a Gelandesprung from a high snow cornice on Mt. Hood, Oregon. Of course this perfectly executed caper is only for the expert, but there are thousands of tyros across the country who get a big kick out of trying. In fact, skiing has just about become the national winter pastime wherever there are snow and slopes, and the Mt. Hood area has more than its share of both. The photo was taken by Ray Atkeson, as were those on pages 12 and 13.



AMERICAN FORESTS is published monthly by The American Forestry Association at 919 Seventeenth Street, N. W., Washington 6, D. C. Subscription price \$5 a year. Editors are not responsible for loss or injury of manuscripts and photographs while in their possession or in transit. The Editors are not responsible for views expressed in signed articles. Entered as second-class matter at the Postoffice at Washington, D. C., under the Act of March 3, 1879. Acceptable for mailing at special rate of postage provided in Section 1103, Act of October 3, 1917, authorized July 10, 1918. Additional entry at Baltimore, Maryland, December 29, 1931. Copyright, 1953, by The American Forestry Association.

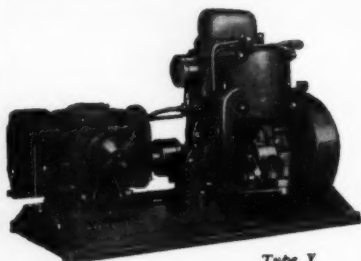
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WHEN THE FIRST Pacific Pump was introduced, it was a startling innovation. To produce an efficient pump light enough to carry by hand into rugged terrain but powerful enough to deliver an effective flow of water to combat forest blazes was news of national importance. Today, after nearly 30 years, many of the earliest Pacific Pumps are still in use and are still the favorite of experienced fire fighters . . . mute testimony to the stamina and dependability built into all Pacific Pumps . . . and to Pacific Pump's policy of supplying parts for even the earliest models.



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LETTERS TO THE EDITOR

Locking the Gate

EDITOR:

I want to be among the first to congratulate you upon your timely and informative article, "Hunter's Paradise Imperiled" by Arthur W. Priaulx in the November AMERICAN FORESTS. You are correct in stating that this same problem applies to managed timberlands in the Northeast.

In the fall of 1946 the access road into the Dartmouth College Grant was opened to hunters without restriction. Destruction of logging equipment, risk to woodsmen, damage to roads, and reckless traffic on this hazardous route forced the College into adopting the present policy.

This is the sixth season when we have operated a locked gate with a full time gatetender from the start of the fishing season on May 1 to the end of the hunting season on November 30. Vehicle entry beyond the gate is not allowed except by written permit. Although the inevitable criticism developed and continues, this "restricted-entry policy" has protected our property and yet has kept the deer herd without bounds.

This arrangement is not perfect, but it does permit a high degree of control made possible by the fact that this area is accessible by vehicles only over a high bridge where the gate camp is located.

We have developed a parking area near the gate, where hunters may leave their vehicle with some measure of protection. If they are successful in bagging a deer or bear, we permit them to drive in with their own car after leaving their firearms at the gate camp. This setup is not a perfect solution to a difficult problem but it has now become accepted in our North Country and several other timberland owners have adopted it where their holdings and access facilities are roughly comparable.

Robert S. Monahan
Forester, Dartmouth College
Hanover, New Hampshire

A Norwegian's Views

EDITOR:

I have read with interest the article by Mr. Dennis Strong, "Norway Plans by the Century," in the November issue. As a Norwegian forestry student in the United States, I would like to correct some of the information given in the article.

Mr. Strong writes: "Norwegians can grow barely half their food." But he does not mention that the country even exports dairy products and meat for a quarter million dollars a year. Farming in Norway is not so poor that the "people live on farms by what they can grow, the fish they can catch and the trees they can cut. No one supports a family by only one of these means." Of 213,441 farmers, 85,234 or 40%, have farming as their only work and of 111,359 fishermen, 35,793 or 32%, have fishing as their only work. The fishing in the North Atlantic is no more "like playing the lotteries." Since the development of the fishery research and modern fishing equipment,

this industry is fairly stable and secures the fishermen a good standard of living.

Regarding the passage "with no coal and limited mineral and ore deposits," I would like to mention that in 1949, 500,000 tons of coal and 1,150,000 tons of minerals were produced. The figures given above are taken from the Yearly Norwegian Statistics 1951 (Annuaire Statistique de la Norvege annee 1951).

The article gives the impression that there is no cooperation between state foresters and forest owners. This may be true in certain parts of the country, but in the more important timber counties there are an increasing understanding of teamwork between state foresters, forest owners and the Norwegian Forestry Society. The latter is an important factor in distributing information regarding forest management, and an always increasing number of members shows that its work is successful. The state foresters give more practical information while the small forest owners usually assist the foresters in marking their trees. Every year more than 200 foresters are graduated from the state forestry schools and a much smaller number every second year from the forestry colleges. A great number of foresters are at the disposal of the small forest owners, so it is not so important that all owners have forestry education.

Another factor I should like to mention is the forest mensuration sponsored by the Norwegian Forestry Society. Without much expense for the owner, he gets a complete plan for harvesting and cultivation of his small forest land. With the plan comes a map with the different types of stands. Following the instructions in the plan and consulting with the map, he will be able to produce timber efficiently on a sustained-yield basis without having any forestry education. On the other hand, he may learn more about forestry by studying the plans and how they work, than by reading much technical literature.

Eyvind Thorbjorsen
Seattle, Washington

Wrong-Way Rows

EDITOR:

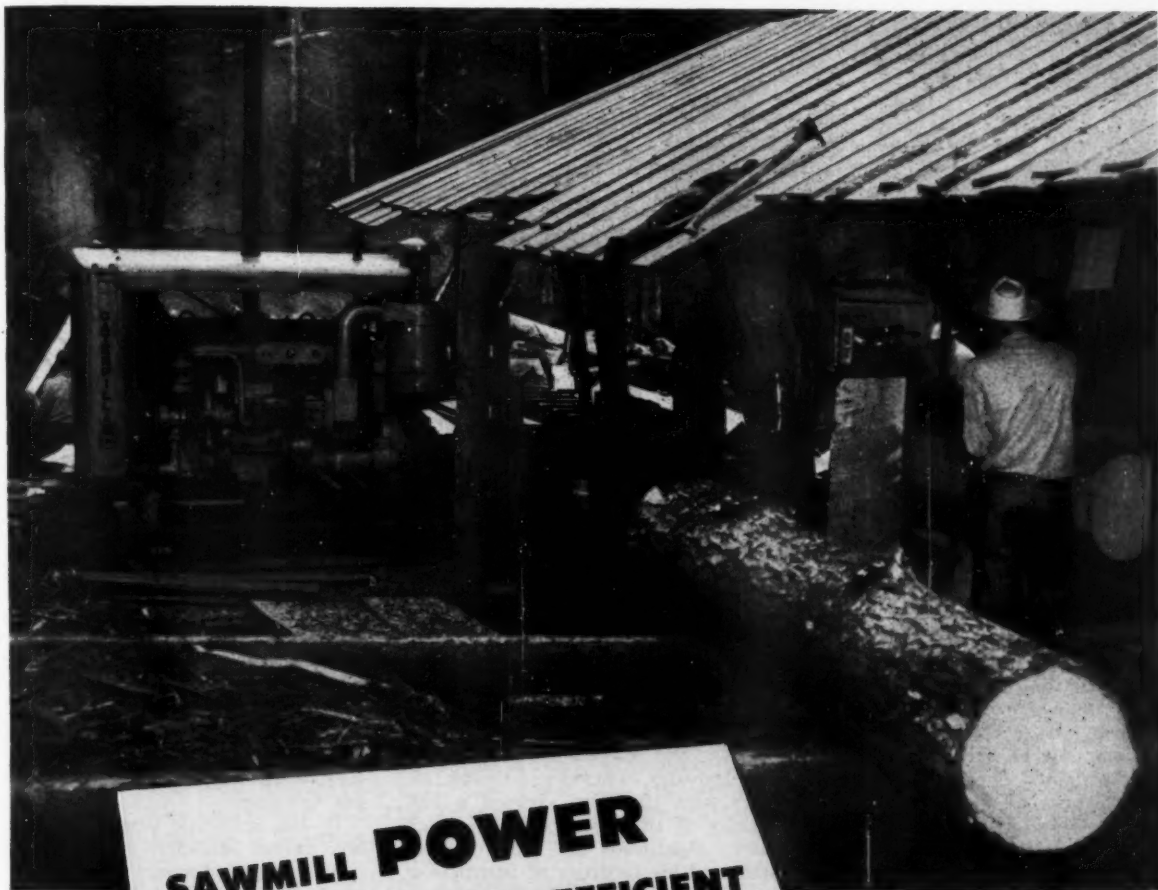
I have received and read with interest the November 1952 issue of AMERICAN FORESTS.

While admiring the beautiful scene on the front cover, I could not help but wonder why you had selected or used a picture showing a rather bad conservation practice, namely, with the corn rows running up and down the hill, which of course as you know is conducive to erosion.

While, of course, still prevalent in many places, this practice would not be acceptable on any well planned farm.

It would seem that a photograph of a hill with the corn rows running across the hill or in contour strips would be equally beautiful and more consistent with the aims of The American Forestry Association.

Clayton M. Hoff
Executive Vice President
Brandywine Valley Association



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The T. & S. Tie Mill runs a railroad tie cutting show in Woodland, Washington, that could serve as a model for portable sawmill operation. Logging second growth Douglas fir, the mill has a daily output of 20,000 board feet of ties.

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Lowell Besley Named AFA Director-Forester

DON P. JOHNSTON, president of The American Forestry Association, has announced that Lowell Besley, professor of forestry and Dean of the Forestry School at the University of British Columbia, has been named Executive Director-Forester of the AFA effective July 1.

Mr. Besley's appointment marks the completion of a current reorganization program in the 77-year-old forestry association, Mr. Johnston said. In November, James B. Craig, formerly manager of the New York City News Bureau of American Forest Products Industries, Inc., joined the association staff as editor of *AMERICAN FORESTS* magazine.

Fred E. Hornaday, secretary and director of advertising, who has served as acting director of the association since April 1952, will continue in that capacity until July, when he will head up a program to expand the advertising field staff of *AMERICAN FORESTS* and work with Mr. Besley in further expanding the scope and influence of the association's work.

Mr. Besley, 43, the son of Fred Besley, a former state forester of Maryland, is a native of Baltimore and received his secondary education there. He was awarded his B.S. degree in agriculture (forestry) from Cornell University in 1931. A year later he graduated from the Yale University School of Forestry with an M.F. degree, "cum laude."

Following teaching assignments in the forestry schools of Pennsylvania State College and West Virginia

University, Mr. Besley went to the University of British Columbia in 1948 to head up and organize that school's forestry department. He marshalled the support of the university, the Canadian government and industry to develop a strong forestry unit that was created a full faculty of the university two years later. Additions to the teaching staff and all facilities of instruction have made it one of the finest forest schools in North America.

Few men in forestry have Mr. Besley's broad background of experience in both the United States and Canada at a time when both countries find they have many interlocking problems in the forest management field. Also, Mr. Besley's outstanding academic career in North American forestry schools has been supplemented by tours of duty in both the public and private forestry fields.

Posts Mr. Besley has handled include: forester for the West Virginia Agricultural Experiment Station; field assistant for the Maryland State Department of Forestry; field assistant for the Northeastern Forestry Experiment Station of the U. S. Forest Service; research specialist at Duke Forest, Duke University, Durham, North Carolina; technician at the Appalachian Forest Experiment Station; and executive secretary for the West Virginia State Planning Board.

In the private field, Mr. Besley has served as a forestry consultant for The American Forestry Association;

consultant for C. D. Schultz & Associates, forestry consultants in British Columbia; field assistant for Franklin W. Reed, consulting forester in Maryland; and Chief-of-Parties for the management inventory of the Canadian Western Lumber Company.

In the academic world, Mr. Besley's career includes: 1934 to 1936, instructor of forestry at Pennsylvania State College; 1936 to 1937, assistant professor of forestry, Pennsylvania State College; 1937 to 1938, assistant professor of forest management, West Virginia University; 1938-1942, associate professor of forest management, West Virginia University.

With the start of World War II, Mr. Besley obtained leave of absence from West Virginia University to enter the U. S. Navy as a Lieutenant, junior grade. Following training in Rhode Island, he saw service with the Pacific Fleet including tours of duty on aircraft carriers and at Okinawa. He was discharged with the rank of Lieutenant Commander and was a specialist in aircraft instrument work.

Following the war, Mr. Besley returned to West Virginia University as a full professor in forest management and remained there until 1948 when he accepted his present post at the University of British Columbia.

In addition to his attainments in diversified fields of forestry activity in two nations, Mr. Besley has been

(Turn to page 50)

Washington Lookout



By ALBERT G. HALL

THE BUDGET OF THE UNITED STATES GOVERNMENT for fiscal year 1954 for a total \$78.6 billion includes funds for the maintenance, and only slight expansion of most activities in the conservation of renewable natural resources. Being submitted by an out-going Democratic President to a Republican Congress in a Republican administration, the budget, when translated into actual appropriations, is likely to be vastly altered.

THE NEW ADMINISTRATION HAS AS A TARGET for reduction a \$10 billion spending cut. While it is too early yet to predict with any degree of certainty, it is confidently assumed that few drastic reductions will be made in the funds for conservation agencies.

ENLARGEMENT OF THE OLYMPIC NATIONAL PARK by an Executive Order on January 6 has aroused considerable opposition. Although the addition of 47,753 acres to the 848,845 already in the park had the approval of both the Department of the Interior and the Department of Agriculture, it had been opposed by Washington's Governor Arthur B. Langlie.

INCLUDED IS AN OCEAN STRIP OF 41,969 ACRES -- 50 miles of Pacific Ocean front connected to the Olympic Mountains by a corridor of scenic forest along the Queets River -- and 5642 acres of Sitka spruce land in the Bogachiel Valley. Reserved in the park, the land is not available for forest management or timber harvest, unless the Executive Order is reversed by act of Congress. Doubtless a legislative attempt will be made to undo President Truman's order -- such is indicated by Representative Mack of Washington -- but it will be a long, slow, costly process.

NATIONAL SECURITY RESOURCES BOARD in a recent report suggested to the various federal agencies programs of action for putting into effect the various recommendations of the President's Materials Policy Commission (Paley Commission). The board in general supported all the recommendations relating to forestry, and while agreeing in principle with public regulation of timber-cutting practices, did not endorse federal regulation for the immediate future.

IT SUGGESTS THAT THE ISSUE BE RE-EXAMINED at the end of five years. In the meantime, however, it proposes that the Department of Agriculture work toward legislation by which the federal government will assist the states financially and technically with the development of state regulation.

PUBLIC LAND LAWS HAVE BEEN THE SUBJECT OF STUDY by a special subcommittee of the House Interior Affairs Committee since June 30 of last year. The subcommittee has filed its report (House Report No. 2512) with the full committee recommending the appointment of an advisory group, representing all interests, to advise the committee on revision of public land laws.

"AS A GENERAL RULE," THE SUBCOMMITTEE SAYS, "transfer of federal land in fee to non-federal ownership should be the main basis of our land policy." It is pointed out that this does not mean a wholesale disposal program of all public lands. Continuation of the study by the 83rd Congress is recommended.
(over)

WASHINGTON LOOKOUT—(Continued)

THE LAKEVIEW FEDERAL SUSTAINED-YIELD UNIT established by the U. S. Forest Service in October 1950 and under which a portion of the allowable cut of the Fremont National Forest in Oregon is allocated for processing within the local communities of Lakeview and Paisley is again the target of Representative Engle of California. He has reintroduced his bill (now H.R.124) for the abolition of the unit. Purpose is a reconstituted unit to include the Willow Ranch Company of California as one of the benefitting cooperators.

COSTS AND EFFECTS OF WATERSHED PROGRAMS for flood control in agricultural watersheds will be made the subject of a special commission, if a bill, H.R.195, introduced by Representative Wickersham of Oklahoma, is enacted.

NATURAL GRASSLAND AREAS FOR THE PURPOSE OF PRESERVING typical examples of native grassland types is proposed by Representative Angell of Oregon. His bill, H.R.214, provides for a study and survey as the basis for establishment of publicly owned grassland areas.

ANTI-POLLUTION INSTALLATIONS ARE COSTLY DEVICES, especially for long-established industries where major plant and processing alterations may be necessary to accommodate them. Public health officials, armed with the anti-pollution law, must of necessity move slowly in enforcement which might force some companies to financial losses. The financial burden of anti-pollution may be lightened if action is taken on H.R.234, introduced by Representative Byrnes of Wisconsin, to permit rapid amortization of the costs for income-tax purposes. A similar bill (H.R.606) has been introduced by Representative Simpson of Pennsylvania.

REORGANIZATION OF THE FEDERAL GOVERNMENT along the lines suggested by the Hoover Commission has been proposed in a number of bills, one of which (H.R.469 by Representative Keating of New York) would re-establish the commission. In the meantime, President Eisenhower's task groups at work in a study of the various departments are preparing their recommendations.

RANGE IMPROVEMENTS IN THE NATIONAL FORESTS would be financed from 25 percent of grazing receipts under S.20 introduced by Senator McCarran of Nevada. He also has reintroduced the perennial bill (S.31) to provide for greater participation by district advisory boards in the administration of the Taylor Grazing Act.

FEDERAL DAMS AND RESERVOIR PROJECTS will require more careful scrutiny if Senator Cordon of Oregon can succeed in getting action on his bill (S.85) to provide that private forest landowners be reimbursed with forest land when flooded out by federal projects. His bill, S.86, would provide payment to states and political subdivisions for relocation of roads destroyed by U.S. Public Works; and Senator Murray of Montana in his bill, S.158, would require provision of access to federal lands blocked off by federal dams.

RESOURCES FOR THE FUTURE, INC.'S PROPOSED WHITE HOUSE conference on natural resources scheduled for March in Washington, D. C., has been postponed until fall, it was announced on January 19th following a meeting of the organization's directors in New York City. However, according to Horace M. Albright, president of the organization, the Ford Foundation-backed group, will take advantage of the March dates set for the White House conference by conducting a series of committee meetings pointing to a well-organized conference sometime this fall.

THE NON-PROFIT CORPORATION, RESOURCES FOR THE FUTURE, was established by a committee of citizens which accepted the invitation from the Ford Foundation to serve as an advisory group on resources, and to assist the officers of the Federation in planning a program and to work in the field of research and education for resources development and conservation. In announcing the formation of the organization, Mr. Albright pointed to the report of the Paley Materials Commission and to the earlier report of the Water Policy Commission, and related studies by the Hoover Commission, as illuminating the materials and resource problems and giving timeliness to steps by private citizen groups to meet it.

EDITORIAL

MEN WITH MICROSCOPES

Man's ability to live longer and under more wholesome conditions is largely attributable to progress in modern research. Millions of dollars are now spent every year to make man more disease-resistant. To that end, research has given us new miracle drugs and vaccines, better housing, more nourishing foods, and a long list of useful products that contribute to our comfort and health.

Unfortunately, epic research to protect man against his age-old enemies hasn't been matched by corresponding progress in the case of our greatest renewable natural resource, trees and forests. Here we find a handful of worthy but frequently-ignored men waging a valiant but often-indecisive holding action against tireless enemies that have now become the prime threat to our forest resources.

These defenders of the forests are the men with the microscopes in entomology and pathology. Their foes are forest-killing insects and diseases that today are destroying 3,500,000,000 board feet of growing timber every year, or more than enough to build homes for 200,000 people.

Inroads made by these twin-killers have created a critical situation. Experts are alarmed. Only the worst-infested areas are receiving a measure of protection. Little is being done to prevent epidemics before they start. The Province of Ontario and the Dominion Government are doing an infinitely better job than agencies in the United States in detection work. A research center at Sault Ste. Marie, Ontario is manned by 200 specialists.

A good commentary on present research in the United States is revealed in the fact that of 1000 plant pathologists in the nation, only 50 are in forest pathology. Nor are students entering forest pathology with alacrity. Pastures are far greener in cereals, fruits, vegetables and a dozen allied areas of pathology endeavor—fields where the importance of research has long been recognized.

Why is the public so ill-informed regarding the insect and disease menace and the paucity of the present effort to bring it under control? One answer is found in an examination of entomologists and pathologists themselves. These people are scientists, not public-relations experts. Men of courage and unbounded inner optimism, their rigid training in disciplined observation enables them to spend long and often unrewarded hours in the laboratory searching for one fragment of truth that might help curb a major epidemic.

At the same time, they have failed to acquaint the public with the scope of their work, the limitations imposed upon them, and the dramatic potentialities inherent in forest research.

Their chill, colorless, slide-rule descriptions of epidemics that have all but rubbed out whole forests provide another clue as to why they have often failed to fire the enthusiasm of average Americans, including legislators, to do something about it.

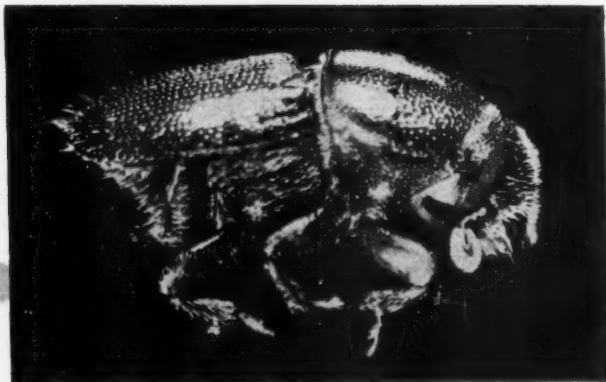
And yet, from the standpoint of forestry, these entomologists and pathologists are the most important people in the nation today. They represent the sole key to the eventual checkmating and prevention of infestations that assume more alarming proportions every year. The chief trouble is there are too few of them and they aren't receiving the support they deserve. What is needed is one strong, greatly-expanded research group made up of the best brains in the country to do nothing but research. A second group of "trouble shooters" should combat infestations and establish a better system of detection.

To establish such a system, these men with the microscopes will need help. They are entitled to get it. Recalling that it was The American Forestry Association that first pointed up the seriousness of the problem in its 1945-1950 Progress of Forestry, it now becomes apparent that AFA and its membership can provide substantial assistance in giving forest entomology and pathology its rightful place in the sun. The great need at present is to acquaint the public with the seriousness of the problem. Accordingly, the first job of the AFA and its members is to become fully informed, to equip itself with the facts.

To that end, AMERICAN FORESTS this month is publishing a comprehensive article on the overall insects and disease problem (see "The Silent Saboteurs," next page). Members are urged to read this article. Additional stories pin-pointing key danger spots in the nation will be published in coming months.

In the process of becoming informed, members will encounter opportunities to perform needed missionary work with key people, including elected officials. By informing these people regarding the seriousness of the situation and stressing that it is their duty to inquire into it, members will aid Washington staff members in a companion effort in the nation's capital. As a starter, the current issue of AMERICAN FORESTS will be placed in the hands of every member of the present Congress.

Years ago, The American Forestry Association helped spearhead a great crusade against forest fires. It got results. Today, a new menace has replaced fire as the number one enemy of the forests. Once again an active AFA finds itself ideally equipped to place the problem before every thought-molder in the United States. An unparalleled opportunity to serve now presents itself to an organization whose motto has been "Service" for 77 consecutive years.



THE SILENT

Insects and diseases today are our No. 1 forest enemies. To keep their already alarming attacks from spreading we must have more funds, more research, more trained personnel, and an immediate public awakening to the problem's urgency

HANDICAPPED by insufficient funds, inadequate research and not enough trained personnel, man today is barely holding his own against the creeping scourge of our No. 1 forest enemy—insects and diseases. Unspectacular, but unrelentless, these silent saboteurs are taking a forest toll estimated at three and a half times greater than the more widely-publicized ravages of fire.

Few things are more spectacular than the blazing inferno of a forest fire, wind-swept and racing through a dense stand of pine, fir or spruce, sending up colorful fountains of sparks as the tops of the trees literally explode in awful splendor. On the other hand, there is probably nothing less spectacular than the silent gnawing of a beetle grub in the soft cambium layer of a giant tree or the slow but relentless creeping of the mycelia of a forest tree disease.

Because of their showy destructiveness, forest fires have become the target of vast expenditures of funds—federal, state and private—for their prevention and control. Every school child knows of forest fires, and through the efforts of the state Keep Green Programs, the jovial but stern warnings of Smokey Bear, and the numberless other public relations campaigns, has become a vigorous opponent of what had been known as Forest Enemy Number One. So effective have been the efforts to reduce the frequency, number and damages from fires that today another enemy-team has gained recognition as the most destructive force at work in the forest.

The timber loss annually from insects and diseases has been estimated

by the U. S. Department of Agriculture at around 622 million cubic feet. Heart-rot fungi alone are credited with destroying 1½ billion board feet of sawtimber annually. Actually no one knows the extent of damage from insects and diseases. The figures quoted above from the forest reappraisal studies of the U. S. Forest Service fall in the category of "guesstimates," for no reasonably accurate mortality studies have ever been made on a nationwide scale.

For one thing, the working force of pathologists and entomologists is far too small to make the necessary surveys; and the few professional men who are available must of necessity concern themselves with only a small segment of the total problem. Because of the lack of definite knowledge of the problem, and the very minimum of research that has been carried on, pest control leaders have been at considerable disadvantage in presenting their case before appropriations committees. Funds granted to them have in the past been too little and too late for most outbreaks. With limited funds, they have done an outstanding job.

There are probably no group of scientists who are held in greater esteem by the forest industries than the quiet, hard-working men who make up the forest insect and disease staffs of the Bureau of Entomology and Plant Quarantine and the Division of Forest Pathology of the Bureau of Plant Industry, Soils and Agricultural Engineering. These men work cooperatively with government and private organizations, and the results of their work are available to all forest land managers. But they ride a vicious cycle—too

few funds mean too few results at best and with few results they are in a poor position to make a good case for greater funds.

In its report on the progress of forestry, 1945-1950, The American Forestry Association points out the disproportionate expenditures for protection from insects and diseases as compared with those for forest fires. The Association reports that the annual drain by insects, diseases and wind is three and one-half times the loss attributable to forest fires, yet in 1945 federal expenditures for all protection were divided 83-17 in favor of fire. In 1949 the ratio was



SABOTEURS

By A. G. HALL

80-20 in favor of fire. Over the five-year period 64 percent of the pest control funds was spent in the control of white pine blister rust, 34 percent on insect and other disease control, and only two percent for research. Total expenditures for pest control during the five-year period was slightly over \$28,000,000.

It is estimated that state and private expenditures for forest pest control rose from around \$2 million in 1945 to around \$2.75 million in 1949, an increase of \$750,000, while state and private expenditures for forest fire control increased by more than \$10.5 million.

The Association also emphasizes that adequate financing of pest control would in turn reduce fire hazards and losses.

Past epidemics of insects have

taken excessive tolls of timber. For example, the Black Hills beetle during the period 1895 to 1908 practically wiped out all the mature pine on 100,000 acres in the Black Hills of South Dakota. During the period 1917 to 1926 the same beetle invaded the Kaibab Plateau in northern Arizona and took a toll of 12 percent of the forest stand. The beetle again in 1947 destroyed 15 million board feet in South Dakota.

Spruce budworm in Maine and Minnesota from 1910 to 1920 killed from 70 to 90 percent of the mature balsam, fir and spruce forests in those two states—a loss amounting to around \$4.5 million. According to Lyle F. Watts, former chief, U.S. Forest Service, this epidemic in New England, eastern Canada and Minnesota destroyed the equivalent of

more than 25 years' supply of pulpwood for current annual American paper requirements. The Engelmann spruce beetle in Colorado from 1940 to 1946 destroyed about 20 percent of the Engelmann spruce in that state—at the rate of around 500 million board feet a year.

The western pine beetle, according to the U. S. Department of Agriculture, is the most destructive enemy of ponderosa pine in the virgin forests of California, Oregon, Washington, Idaho, western Montana, and British Columbia. In the United States during the period 1921-45 this beetle killed approximately two million trees or one billion board feet of timber, *every year*—a gross loss of 25 billion feet worth 100 million dollars—more softwood

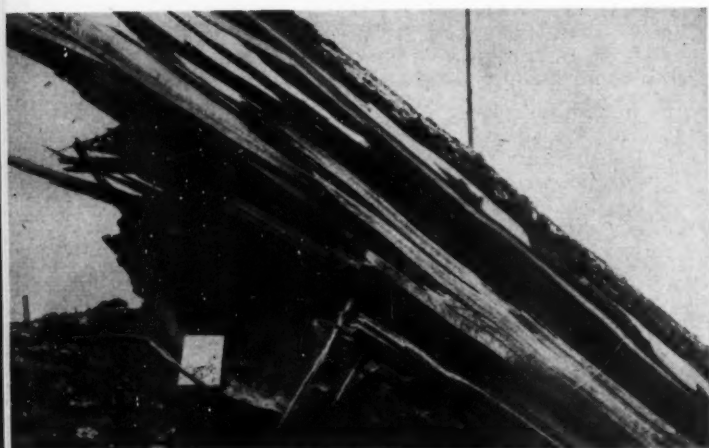


Daniel Olin, left, air operations officer, plots survey with George Francis, chief observer, BLM

◀ 1952 aerial survey shows beetle-killed timber in Salem, Oregon district, Bureau of Land Management



Splintered and piled timber like this complicates salvage. Piles are common sight in areas attacked by insects, diseases



Individual trees have suffered such destruction that detailed measurement is required to assess the timber before it is sold



Tangled masses of inflammable material, plus extreme difficulty in moving equipment, makes fire fighting almost impossible

lumber than was produced in the "all out" war year of 1942.

In the Rocky Mountains beetles have destroyed 16 times more timber than was destroyed by fire in the region during the past 30 years.

Douglasfir tussock moth was brought under control on 400,000 acres in Idaho in 1947. The previous year the timber on some 16,000 acres had been killed by this defoliator. Prompt action by spraying with DDT is estimated to have saved around 1,519,000,000 board feet of timber valued at \$84 million.

Two severe windstorms swept the Douglasfir region of Oregon and Washington in the winters of 1950 and 1951. This coupled with a subsequent epidemic of the Douglasfir bark beetle have accounted for a timber loss of 10 billion board feet—the most serious damage to the Douglasfir region since the Tillamook Burn of 1933.

An aroused forest industry sparked by the Northwest Forest Pest Action Committee began to develop control programs immediately—in this case salvage logging of the dead and dying trees is the only practicable means of preventing the spread of the beetles and the complete loss of the timber. The Northwest Forest Pest Action Committee is a joint effort of government and industry. It is composed of all the federal and state agencies concerned with forest land management in the Northwest and the leading foresters of the industry. Ernest L. Kolbe, forester, Western Pine Association, is its chairman.

The amazing degree of cooperative effort exerted by this group is understandable: both industry and government have tremendous values at stake in the forests of the Northwest. Blowdowns and beetle infestations are not respecters of property lines. A source of epidemic infestation on one ownership is a real threat to all others. This is true of the entire country, but is especially acute in areas such as in the checkerboarded Oregon and California Grant Lands of western Oregon. Here the intermingled ownerships present difficult problems of access, road usage, and competition for stumpage.

Any one company or public agency "dragging its feet" can be a major threat to the present and future economy of the area. Naturally, jurisdictional controversies are present. It is highly significant, however, that when such a group of diverse owners are faced with a com-

mon threat, they can be welded together into unity of action. The Northwest Forest Pest Action Committee performs the welding process. A subcommittee, similarly manned by government and industry members, was established to deal specifically with the Douglasfir beetle problem. W. D. Hagenstein, energetic forest engineer of the Industrial Forestry Association, was named chairman of the subcommittee.

Due to the tireless activity of this group a salvage program is now under way throughout a major portion of the epidemic area. The committee as a group and its members as individuals have aroused the people of the Northwest to the seriousness of the situation, have supported before the Congress of the United States additional funds for access roads on public lands, worked with the state legislators and state forestry officials on cooperative measures, and have assisted in developing the plans for positive action on each other's lands.

A certain amount of justifiable impatience is shown regarding the need for a more aggressive program of salvage logging in some of the areas administered by the federal government. But it must be remembered that the same flexibility in use of funds and the altering of

established regulations cannot exist in the public forests as in the private ones. A comforting thought for the future, however: federal procedures developed for this emergency will save considerable time in the next one.

The Northwest Forest Pest Action Committee reports that a cooperative program in the years 1949 through 1952 has resulted in holding a spruce budworm epidemic in Oregon and Washington below killing intensities on millions of acres. Populations of the budworm started building up through the period 1944 to 1946; then in 1947 the infestation, although light, covered 908,000 acres. By 1948 it leaped to 1,446,000 acres of which 484,000 acres were reported as "heavy" epidemic with trees dying. The cooperative control program in 1949 resulted in the spraying of 267,000 acres while the total infestation reached 2,276,000 acres of which 887,000 were heavy epidemic.

Spraying activities were increased in 1950 to 933,000 acres. Another 927,000 acres were sprayed in 1951, reducing the total epidemic area to 1,651,000 acres of which only 82,000 were classed as "heavy." Continuation of the program with the spraying of 665,000 acres in 1952 re-

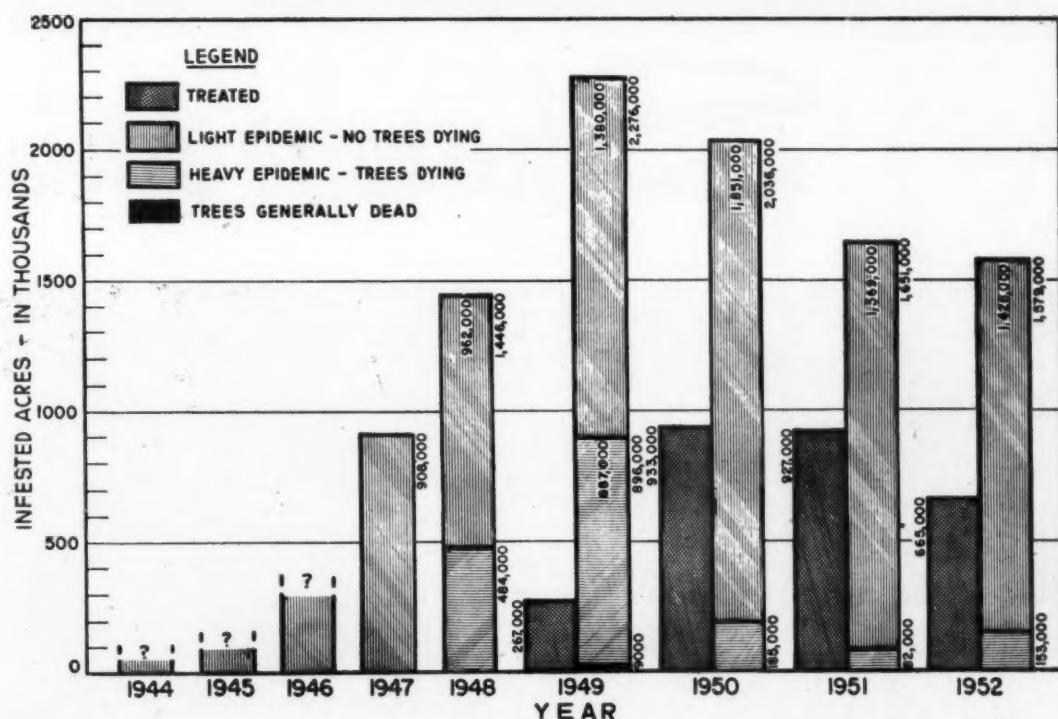
duced the total epidemic to 1,579,000 acres, but the areas of dying timber increased somewhat to around 153,000 acres. While this program of action by federal, state and private agencies, carried on at a cost of some \$3 million, has kept the epidemic from spreading, and has reduced the budworm populations almost to the point where natural predators may be able to keep them under control, new centers of infestation are developing. While the outlook is encouraging, the situation cannot be dismissed. It will bear constant watching and readiness for action. A further control program is being planned for 1953.

Only some of the more extensive outbreaks have been mentioned above. Others include periodic attacks by gypsy moth, forest tent caterpillars, and the southern pine beetle which attacks all pines in the east and the south. Other insects, seldom killing in their effects, produce defects in lumber and thus reduce its grade and market value.

Diseases—The oak forests of the nation are threatened by the oak wilt which has spread eastward and south from the Midwestern States to embrace practically all the important oak-producing areas. So far lit-

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PROGRESS OF SPRUCE BUDWORM EPIDEMIC IN OREGON AND WASHINGTON





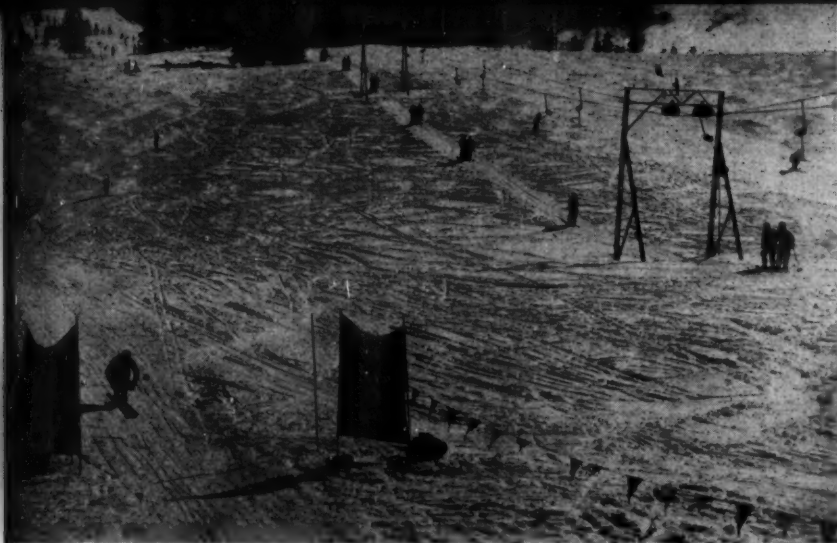
Shussbooming



Heavy winter snows create these high-walled snow canyons that line the parking area at Mt. Hood

Ski-Way tram carries skiers and sightseers more than three miles from Government Camp to Timberline





Some of the thousands of Northwest skiing enthusiasts take advantage of a sunny day to try the slopes of Multnomah mountain in Mt. Hood area

When accidents happen rescue squad is at scene in matter of minutes



The jumping competition at Mt. Hood attracts some of world's best skiers



Photos and story by Ray Atkeson

Lone skier trudges toward the welcome warmth of Timberline Lodge after busy day on slopes



on Mt. Hood

UNCLE Sam has collaborated with Mother Nature in creating one of the finest winter recreation areas in America—Mt. Hood, Oregon, in the heart of a vast winter sports development concentrated in the Mt. Hood National Forest.

Mt. Hood is located about 60 highway miles from Portland, a city of 400,000 population. Surprisingly, this natural winter playground, right in the back yard of one of America's great cities, was explored by only a hardy few until well into the '30s. When skiing in America finally took hold it didn't take long for Mt. Hood to come into its own. In a matter of ten years or so the

number of Portlanders who had taken up the sport had mushroomed from a handful of skiers to an estimated 50,000 enthusiasts.

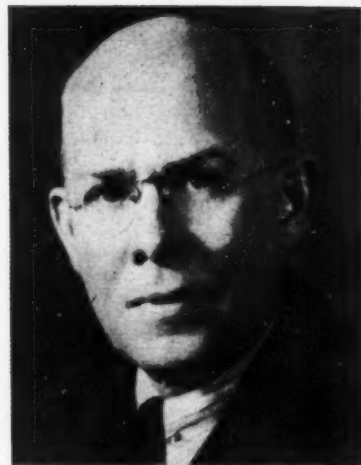
Uncle Sam has kept pace with the progress of winter sports on and around Mt. Hood. Timberline Lodge, one of the world's most beautiful resort hotels, was constructed on the slope of the mountain where the forests give way to open snow fields. A giant chair ski lift was installed to carry skiers another mile up the mountain slopes. The Forest Service built two new roads to Timberline and kept a fleet of snow plows busy clearing snow so that cars could be driven up through

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Traditional GOP Land Policies

By G. H. COLLINGWOOD



G. H. Collingwood, long-time interpreter of capital scene

FREEDOM of landownership as a cornerstone of the American economy, and the need for persistent vigilance to secure the fulfillment of promises made in party platforms, was the keynote of a recent address by Laurence F. Lee, president of the Chamber of Commerce of the United States.

"A plank," he said, "can get lost in the shuffle of conflicting interests all too easily." The occasion was a luncheon given by the National Lumber Manufacturers Association in Washington, D. C. The reference to landownership is in the public lands plank of the Republican party platform as adopted last July. This section favors "restoration of the traditional Republican public land policy, which provided opportunity for ownership by citizens to promote the highest land use." It continues by proposing "an impartial study of tax-free federal lands and their uses to determine their effects on the economic and fiscal structures of our states and local communities."

The National Lumber Manufacturers Association, reminded Mr. Lee, "has consistently urged the retention of the maximum possible proportion of forest lands in private, tax-paying ownership." He also called attention to the fact that, "as of today, the numerous land-administration bureaus of the federal government own 24 percent of all the land in the United States. In the

last 20 years," he continued, "the government has increased its acreage in the 11 western states from 33 percent to 54 percent." Finally, after quoting the Chamber's position with regard to public lands, he proposed that the lumber manufacturers join with the Chamber and other interested groups in an appeal to Congress to suspend all land acquisition, except for military use, pending "an examination of federal lands to see what property is best suited for private ownership, to the end that it be offered for sale to the public, under proper safeguards, as soon as possible and thus be placed on tax rolls and in productive use by private enterprise."

The quotations are from a prepared speech which was released to the press, but before resuming his seat Mr. Lee is reported to have turned to Chief Forester Richard E. McArdle, who was a guest at the head table, to directly accuse him of heading an arbitrary and willful bureau whose program of land acquisition and forest management brooked restraint from no one. Those attending the luncheon got no further than the corridors before questions were voiced as to whether this was an opening gun in another attack upon the Forest Service.

Some, who heard about the incident, recalled Bernard DeVoto's article, *An Old Steal Refurbished*, in HARPER's magazine for last October,

where the public lands plank of the Republican party platform is described as part of a long continued attempt "to turn over the remaining public domain of the United States to the individual states . . . so that it could be sold to the grazers who are using it." More specifically, Mr. DeVoto considers it part of a plan "to take administration of the grazing ranges away from the Forest Service and hand it over to the holders of grazing permits."

The appearance of such straws in the passing wind perhaps warrants a review of the "traditional Republican public land policy," and especially those portions generally accepted as the Theodore Roosevelt public land policy. Mr. DeVoto recalls that this policy is still in force. "It has been the fixed policy of the federal government," he wrote, "in spite of continuous efforts, mostly Republican, to hamstring or destroy it. Later administrations, including that of another great conservationist, Franklin Roosevelt, have only built on it."

History reveals that Republican leadership conceived the original legislation basic to the national forests, attended their birth, and nurtured them with most of the legislation basic to their development. This is as true of the acquisition program of the 20th Century as of the earlier withdrawals from the public domain. It remained, however, for the Democratic Administration of Franklin Delano Roosevelt, encouraged by the depression, to use the Republican made program for a rapid expansion of the eastern national forests. In the minds of many,

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The author, a veteran observer of federal land policies, urges the GOP to carry through its pledge of an impartial study. He advises caution, however, until "facts are in"

A Way Back to Land Freedom

Suspension of federal land acquisition until a study determines what properties now held by the government can be returned immediately to private enterprise is the path advocated by U. S. Chamber president

By LAURENCE F. LEE

THERE are few things more fundamental to the well-being of American society than the freedom of landownership. It is a cornerstone of our economy. Most of our forebears came here in search of human rights that had been denied them in the old world. They sought religious freedom and political freedom, but they also sought land freedom. They founded this country on the solid premise of strength and abundance through the genius of free men applied to the land and its resources.

Unlike some of our present-day reactionaries who appear to think in terms of landownership as it existed in the feudal ages, our forebears recognized that property rights are also human rights. They knew that tyranny has its roots in land that is held and controlled by a few political figures.

The classic case of tyranny today is Communist Russia. The Soviet Union is the world's largest landlord. All of the land is owned or at least controlled by the central government. When the communists plowed under the freedom of landownership, they also buried the other human rights.

The United States government is on the way to becoming the world's second largest landlord. The trend has been in that direction for at least the last two decades.

This trend is complete reversal of the principle behind our Homestead Acts in the 19th Century. The Homestead Acts made government the agent of the people to open the undeveloped west and give every man a chance to earn land for himself through his own skill and hard work.



Laurence F. Lee, president of U. S. Chamber of Commerce, made proposal at NLMA meet

In the 19th Century, our government diffused landownership. In the 20th Century, it has been taking the land back. That is not progress. That is sheer reaction.

As of today, the numerous land-administration bureaus of the federal government own 24 per cent of all the land in the United States. In the last 20 years, the government has increased its acreage in the 11 western states from 33 percent to 54 percent.

No one seems to know exactly how much acreage is held by the federal government, but we do know it exceeds 455 million acres, exclusive of Indian reservations and of federal lands in Alaska and other territories. Even the federal bureaus themselves do not know how much they own.

Representative Russell V. Mack of Washington told the House of Representatives last year that more than 40 federal agencies are involved. Sixteen different agencies control federally-owned timberlands. And no two have the same ideas on how the federal property should be managed.

You men and women in lumber manufacturing know these facts, of course. But most of our fellow citizens are probably not aware of them or at least not aware of the danger inherent in federal ownership of land. It is an obligation for those of us who recognize the dangers to inform others in terms they understand and in terms that have some relation to their own problems.

It is safe to say that on November 4, the American people voted against the principle of an over-swollen bureaucracy. Our people should be in a receptive mood right now to learn more about the jeopardy to human rights through over-centralizing government.

Do they know what the lack of land freedom does to their pocket-books? To the sovereignty of their states? To community government? To the elementary and secondary schools and state colleges and universities? These are the things they ought to know. The facts of the case have a vital appeal, for they are directly related to the family budget.

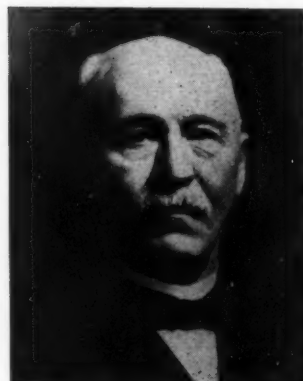
Do the American people know that the federal government does not pay taxes to the states in which its holdings are located? Do they know that the federal land empire deprives the states of taxes on 24

(Turn to page 26)

Until made obsolete by trucks and tractors these huge logging wheels were used by lumbermen all over the U. S. Evolved from a pair of wagon wheels, they were first manufactured in 1870

By R. D. BURROUGHS

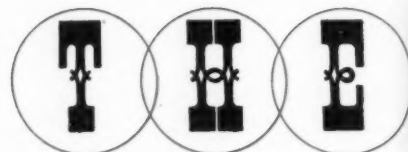
Silas C. Overpack, credited with inventing the big wheels



Silas Overpack's wagon shop and logging wheel factory, Manistee, Michigan. Here big wheels were manufactured from 1870 to 1936



Ready for business. The tongue has been raised, the spring board moved to one side, and the sling chains looped around the logs



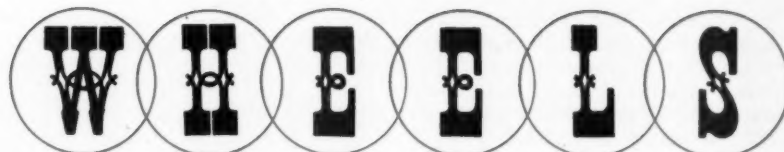
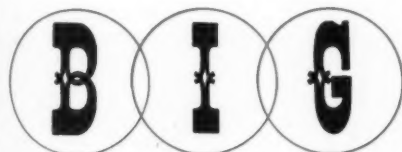
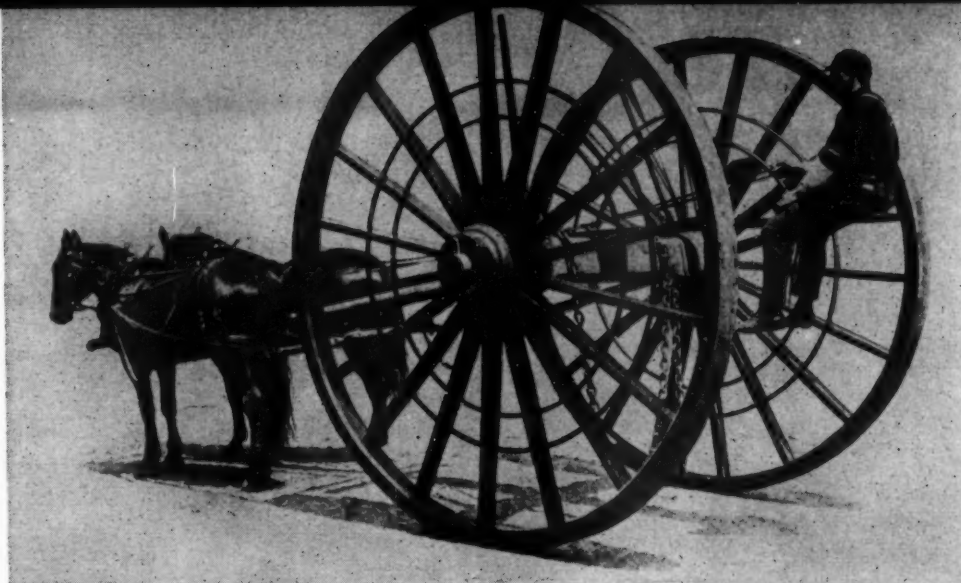
MANY yarns have been spun and many noteworthy books have been written about logs and logging, but few, if any, of them include anything about the origin and use of the big wheels. This lack of attention to one of the most picturesque pieces of equipment ever devised for use in the woods is hard to explain.

When and where was the first set of big wheels made and used? Did they originate in Michigan or were they brought into the Michigan woods from New England or New York?

Roy M. Overpack of Manistee, Michigan appears to have given us the answer to these questions. In an article which appeared recently in the magazine, MICHIGAN HISTORY, he provides substantial proof that his father, Silas C. Overpack, a wagon-maker, constructed the first set of logging wheels at Manistee in 1870.

After reading this account I wrote to Mr. Overpack for additional information and for permission to quote from his article. His reply, in part, is as follows: "I am enclosing herewith a complete set of our advertising circulars which were mailed all over the United States to lumbermen for many years. Also one of our

AMERICAN FORESTS



regular invoices. If you will read these circulars carefully, I think they will give you the complete story in connection with the facts mentioned in the article which appeared in the June 1951 issue of MICHIGAN HISTORY.

"My father started the manufacture of these wheels about 1870 and they were an evolution from a pair of rear wagon wheels, as explained in the article. They were manufactured here for about 65 years. My father passed away in 1927 and I operated the business for about ten years, until the call for wheels stopped because of the increasing use of tractors and trucks. We were known by lumbermen all over the United States, as you will note in the circulars. Our wheels received first premium and a medal for excellence at the World's Columbian Exposition held in Chicago in 1893. This brought us inquiries and orders from all over the world. I personally shipped a carload of wheels to the 10th Engineers for use by the U. S. Army in France during the first World War, and received a call from them for an additional 100 sets just before the Armistice was signed, but the order was not received because of the Armistice. These wheels were

most closely associated with the early lumbering industry of this state and could be found wherever there was any logging being done."

In a recent conversation Mr. Overpack highlighted these facts concerning the history of the big wheels with many interesting details not included in his letter or published report. He pointed out the site formerly occupied by the Overpack wagon shop and logging wheel factory on the corner of Pine and Water Streets, opposite the Chippewa Hotel in Manistee, Michigan. An automobile parking lot now occupies the ground where the factory stood. All that remains of this historic enterprise is an old frame building which was used by the company for the storage of materials.

It was here that a farmer came into the wagon shop in 1870 and asked Silas Overpack whether he could rig-up a set of rear wagon wheels with a tongue and chain for hauling logs out of the woods. He could, and did. A few weeks later the same man came into the shop again, and reported that the outfit worked fine, but he wished it had been big enough to pickup two logs instead of one. After discussing specifications and estimating costs, a two-log set of wheels was

ordered. This worked so well that an order for still a larger set came in. The news spread; other farmers and local loggers wanted similar wheels. In a comparatively short time Silas Overpack found himself in the business of manufacturing logging wheels.

One of the main reasons for the popularity of Overpack wheels was the quality of material and workmanship which went into their construction. This quality was never permitted to fall below a certain rigid standard of excellence.

The standard specifications for Overpack wheels were: height, 9, 9½ and 10 feet; size of hub, 19x20 inches; number of spokes in each wheel, 18; size of spindle on axletree, 6x8x20 inches; size of tire, 6x1½ inches; track of wheels, outside, 7 feet 5 inches; length of axletree, between shoulders, 4 feet 8 inches; length of tongue, 16 feet; average weight, per set, 2000 to 2400 pounds; weight of tire, 400 pounds.

Though the maximum height of the wheels was ten feet, Roy Overpack says the western loggers wanted even higher wheels for moving big pine and fir logs. He recalls an order from a logging firm in northern California which called for a car-

load of 14 footers. This order could not be filled, however, because nothing in excess of ten feet in height could be shipped via railway flat-car due to limitations imposed by bridges and tunnels.

In the days of big wheels logging horsepower was provided by horses, not by gasoline. They were hitched in the conventional manner on either side of the tongue when moving a set of unloaded wheels, but when a load of logs was ready to move they were hitched ahead of the tongue.

Loading a set of logging wheels required the coordinated efforts of two or three men. First, the teamster backed the wheels over a wheel-load of logs, then having freed the doubletrees, he drove his horses out ahead of the tongue and hitched onto a long, light chain which could be hooked onto a ring affixed to the end of the tongue. A loader then mounted the springboard and grasped the upright handle on which he pulled back with all his strength. His weight on the springboard combined with his effort in pulling back on the lever was sufficient to elevate the tongue to a vertical position. His helper then snaked the heavy log-chain through a prepared chain-hole beneath the logs, and hooked it as snugly as possible to the short chain described above.

The horses, which had been hooked to the light chain attached to the end of the tongue, were driven forward to pull the tongue down. In so doing, the load of logs was lifted a few inches off the ground. This was (1) because the axle in case of the Overpack wheels, at least, was slightly "bowed" to give added lift when the tongue was in driving position; and (2) because the axle being firmly joined to the tongue, rotated through a 90° angle when the tongue was raised or lowered. Consequently, the axle acted as a pulley with respect to the chains which supported the logs. When the tongue was elevated, the chains were lowered, but when the tongue was brought down, the chains supporting the logs were raised as they wound over the axle.

Then the teamster backed his horses into driving position just ahead of the tongue. The slack in the light chain to which they were hitched was taken up by carrying it back through the ring at the end of the tongue and by looping it around the forward end of the logs. Thus, in pulling the load the energy was applied directly to the logs,



THE OLD AND THE NEW—huge Diesel tractors, top photo, equipped with a logging arch have replaced the now antiquated, but once highly-revolutionary, logging wheels drawn by horses or oxen, bottom photo



rather than to the tongue, or axle.

Horses, as well as men, had to be trained to work with the big wheels. Heavy horses were best. In the words of George A. Newark of Harbor Springs, Michigan, "It took a damn good team . . . heavy, roughly the 4000-pound type and a first-class teamster to handle big wheels."

The teamster walked alongside the tongue between the horses and the loaded wheels. If the road was crooked and rough, as they generally were, he was in danger of having his head batted off by the pitching tongue; or, if he tripped and fell on a downhill grade, he was likely to be crushed beneath the wheels. There were no brakes to set; there was no breeching or neckyoke to hold back the load when the horses

were hitched out in front of the tongue. If, because of improper loading, the wheels got out of control on a steep grade, both teamster and horses had to outrun the load.

Ordinarily, the logs were suspended beneath the wheels well out-of-balance so that the rear end of the load dragged on the ground behind the wheels and acted as a brake. Sometimes, however, due to carelessness or poor judgment, the weight of the "drag" was insufficient to hold-back the load.

It is difficult to fix the date when the big-wheels passed out of the logging scene. George S. McIntire, Michigan's State Forester, can recall seeing them in use on a cutting operation involving some scattered rem-

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A Woodsman in Washington

By ROBERT S. MONAHAN

Sherman Adams, the new assistant to President Eisenhower, has taken a long and outstanding conservation record to the nation's capital



As the man behind the President, Adams will have a powerful voice in shaping the destiny of our country

SOME 16 years ago Sherman Adams, woods boss of the Parker-Young Company at Lincoln, New Hampshire swapped his outdoor jacket and pitch-streaked pants for "store clothes," adjusted the inevitable bow tie reserved for special occasions, and drove through the flaming, mid-September foliage of Franconia Notch toward the largest hotel in the state to share his ideas on forest-land use with a group of conservationists gathered at the Mount Washington Hotel to commemorate the Silver Jubilee of the Weeks Law. It was the first time the name of Sherman Adams had appeared on such a formal program.

Not long ago (December 17, 1952) the same Sherman Adams, still wearing a bow tie, was the guest of honor at a testimonial banquet held in his home state. So many of his friends wished to greet the retiring Governor and his family that the largest armory in New Hampshire had to be engaged for the occasion.

In the intervening years Sherman Adams has come far from the pulp cuttings of the White Mountains to the Executive Office of the White House. He is still the same hard-hitting, forthright, well-informed woods boss who delivered his first prepared address to the meeting held

at Mt. Washington's base in 1936.

That occasion was more than a milestone in the history of the Weeks Law. It introduced Sherman Adams as the spokesman of wood-using industries.

Thousands of acres now owned by Uncle Sam could be viewed from the meeting place. Watershed benefits provided by such ownership were obvious to those with eyes to see. Recreational facilities, especially those recently provided by the Civilian Conservation Corps, told their own story to those accompanying field trips through the adjacent White Mountain National Forest.

There was still a very important chapter someone had to tell—the relation of these public lands to the local wood-using industries. Lawrence W. Rathbun, then serving his first year as a successor to the renowned and beloved Philip Ayres as Forester of the Society for the Protection of New Hampshire Forests was definitely on the spot to produce someone who could fill this blank in an otherwise well-balanced program.

Would Sherman Adams, quiet appearing but outspoken woodlands manager of the nearby Parker-Young Company, fill the bill? Some suggested this selection might prove a long shot, and all agreed that he was

well qualified to act as spokesman for the wood-using industries doing business on the fringe of the forest.

The speaker started slowly but with concise balanced statements: "It is both a privilege and a pleasure to be permitted to present the case for industry as it relates to a national forest policy. I propose to consider with you the subject of utilization of the products of New Hampshire forests bearing particularly upon the relationship between the policy directing public administration and the stability of our industries and the survival of our industrial communities."

The erstwhile walking boss warmed up to the occasion, perhaps sensing there were those in his audience who had observed only the recreational values of a national forest. It was then he remarked, "After the satiation of public desire for the fruits of public ownership, thousands upon thousands of acres remain, fit only for the growing of timber crops. And these timber crops rightfully represent the sustenance of forest industry, its employees, towns and communities."

Finally, in words prophetic of current circumstances, the speaker closed, "With a more general understanding of the inherent responsibility (Turn to page 36)



Abuses Under the Mining Laws

Two Determined Women

Loopholes in antiquated mining laws are permitting mining claimants who don't mine to use public domain for purely personal convenience and profit

SO LAX are the federal mining laws, and so many are the loopholes therein, that the tricks practiced by certain individuals in order to obtain control of national forest land seem almost without end.

And for sheer cussedness and unmitigated gall, the case of the two determined women on the Madison River in the Gallatin National Forest in Southern Montana beats almost anything I've yet run across in the annals of the United States Forest Service. For more than 20 years two women defied the federal government and carried on a series of questionable deals—deals with property they didn't even own, for they never patented their numerous mining claims.

For over two decades the Forest Service tried everything in the book to get them off of the Gallatin—even to calling in two other federal agencies. In the end, the women tripped themselves by violating a simple law. After seeing the layout, I can understand why the women fought so hard to keep it—the setting certainly is beautiful.

The whole business started on August 31, 1929, when the two women filed a millsite claim on the Madison River in connection with the Minnehaha lode mine claim which they also had filed.

However, the land taken over by the claims embraced some property the Forest Service had planned as a recreation area. The Madison River is an excellent trout stream and the Service proposed certain camp-

ground improvements for the use of the public.

Nothing daunted, the two women proceeded to fence the area, including a half-mile stretch of the river, posted "no trespassing" signs and erected cabins. They expanded their "holdings" to include 21 lode claims, three placer claims and two millsite claims. None of the claims ever went to patent. With all this territory to work with, they formed the "High Hope Mining Company," which was to serve as a front for several money-making schemes. During the course of their operations they filed the "Golden Horse Claims," which according to county records, didn't even exist.

During the course of several years, during which time the pair blocked every attempt of the Forest Service to develop a public recreation area on the land (including threatening to shoot trespassers), the women made a mistake by attempting to sell one of their cabins to an innocent party by mail. Postal authorities were called in to determine whether the mails were being used to defraud, but still there wasn't enough evidence to start trespass proceedings.

In 1936 the Forest Service opened up a road along nearby Beaver Creek to facilitate a timber sale. While constructing the road, a ledge of quartz was discovered. Then the two ladies really went to town. They filed numerous claims in the area, practically blocking off access to the timber which was being cut for power-line poles and lumber for the

ranchers of the surrounding region. The two women tied up timber operations for six and a half years.

In the meantime, they tried to pull another questionable deal and almost got away with it. They interested a cafe owner in the nearby town of West Yellowstone, 25 miles away, in buying stock in their High Hope Mining Company. On December 2, 1938, the near-victim of the stock swindle made an interesting notarized statement before Forest Service officials.

He said that the two women had approached him with the idea of buying into the High Hope Mining Company. He was to put up his cafe as collateral, receive half the stock in the company, and become general manager. The two women told him that they had unlimited water power and could use the Madison River as they chose under the guise of mining operations. They even went so far as to state they could even build a town on "their property" if they chose to do so.

In order to clinch the deal, the women offered to show their prospect samples of gold and platinum ore taken from their various mining claims. In order to do this, they insisted upon driving to the School of Mines in Butte, Montana. There the pair surreptitiously filched ore samples from the refuse pile at the school dump and tried to pass them off as ore samples from the various mining claims.

This bit of bald chicanery convinced the cafe owner that he was dealing with a couple of sharpsters

and he called the whole deal off. He subsequently gave authorities a signed statement, the gist of which I've given you. During all this time, the Forest Service, whenever possible, conducted tests of the mining claims. Not once was any evidence of legitimate mining discovered.

Back in 1933 the Forest Service made a strong attempt to have the Madison River claims invalidated. That was in the days of the CCC and the Service had a crew of boys scheduled to go ahead with the recreational project. The Service had no luck. Again in 1939 the Service tried to bring the two women into court on the grounds of illegal timber sales from one of the claims, but the attempt was unsuccessful. Meanwhile, the two women had inveigled several citizens of West Yellowstone to invest money in High Hope Mining Company stock. A proposed dude ranch was one of their come-ons.

Finally the pair pulled the trick that led to their downfall. They sold 400 poles off one of their mining claims along the Beaver Creek. A rancher, desperately in need of the poles and unable to get them legitimately because of the blocked timber deal—blocked by the mining, claims of the two women—bought the poles.

The Forest Service learned of this deal and called in the FBI (federal property was involved). Evidence was amassed to show the two women guilty of selling government proper-

ty and illegal trespass. A warrant was sworn out for their arrest in the spring of 1951. The women were nowhere to be found. They had skipped the country, and where they went, nobody knows to this date. The warrant is still in effect in case they ever return to Montana.

In May of 1952, the local court declared the millsite and other claims on the Madison River invalid and gave the Forest Service an OK on the blocked Beaver Creek timber sale with an order to disregard the mining claims thereon. Whereupon the Forest Service stepped in and cleaned up the holdings on the Madison River, which included several cabins, a corral and other buildings. They found no indication of legitimate mining whatever.

And thus ended the case of the two determined women.

How much in actual cash that 21-year battle cost the Forest Service is difficult to determine. Time spent in investigations by rangers and mining experts, which would have been profitably spent otherwise, is a large factor. Then there is the undefinable figure of the value of a beautiful recreation area denied the public for two decades. As this goes to print, work on the recreation area is about completed. It will be open to the public this forthcoming spring.

The ranger in charge of the district had an extremely tough assignment. In its latter stages, for more

than four years he was sharply criticized by residents of the area for not taking drastic steps to evict the two women, who most certainly were not popular locally. In all fairness to him it must be stated that he did everything legally possible to get the claims invalidated. It is extremely difficult, under existing laws, to get anyone off a mining claim.

It is quite obvious, in recounting this case, that it depicts the career of two questionable characters. I can state with utmost conviction that legitimate miners would engage in no such shenanigans.

This entire case was made possible by the federal mining laws. Promulgated more than 80 years ago, they give any mine claimant almost unlimited use of the surface rights of the land on his claim. Often, as in the case of the two women on the Madison River, the surface rights far exceed in value any minerals that might be underground. Such a situation leads to literally thousands of examples of greedy persons engaging in highly questionable practices in order to seize resources belonging to the public that have a definite and high cash value.

In order to permanently halt the widespread practice of grabbing off publicly-owned lands through false manipulation of the lax mining laws, there can be no alternative to the proposition that the laws must be altered to prevent such reprehensible practices.

Finding evidence of mining activity on some mining claims is like trying to find the proverbial needle in a haystack, even for experts





... *In the Northeast*

Profit From Thinnings

By R H. FENTON

IN THE eastern United States there are hundreds of pine plantations, ranging in size from a fraction of an acre to several hundred acres. Many plantation owners give little thought to the ultimate harvest. They know that trees grow slowly, and 50 or 60 years will pass before their trees are big enough to go to a sawmill.

But thinnings can be started when the plantation is comparatively young. As the trees grow and the plantation becomes crowded, it should be thinned to make room for the crop trees to grow. And the trees that are taken out can often be turned into money.

Several markets for plantation thinnings have been developed. The biggest market is for pulpwood. Charcoal plants are another outlet. Sometimes thinnings can be chipped into mulch. A seasonal market is sometimes found for Christmas greens.

Of course these markets are limited; they cannot absorb all the wood that is taken out of a plantation in thinnings. The margin of profit may be pretty slim. But with the aid of an active imagination, an alert plantation owner can often develop a specialty market that will give him a nice profit.

The owner of a red pine plantation in Connecticut showed how this can be done. After looking over the possible markets for small red pine, he reasoned that preservative treatment might open up new markets. Although red pine has little resistance to decay in its natural state, it is very receptive to preservative treatment. And there are simple methods for treating small timbers.

After thinning a 23-year-old plantation, he undertook to treat some 2500 peeled and seasoned highway posts, using a cold-soak method with

pentachlorophenol; and about 1000 stock fence posts, using zinc chloride and the so-called "barrel treatment." Within three months he had sold nearly all the highway posts at a clear profit of 25 cents each and more than half the fence posts at a profit of 17 cents each.

Encouraged by this, he decided to try the "stepping" method, by which it is possible to treat trees up to 35 feet long. This method has long been used in preserving small material such as bean poles and grape stakes, but it has not been used much in treating large trees.

The tree is cut so that it lodges against its neighbors—a fairly easy thing to do in a dense plantation. Then the butt is eased up and into a container (half of a 55-gallon oil drum will do) that holds a dilute

preservative solution. In five to ten days, as natural moisture is transpired by the foliage, the preservative is drawn up into the stem, becoming uniformly distributed throughout the sapwood. Of course this is a warm-weather operation, depending on the functions of the foliage.

This Connecticut plantation owner used a five percent solution of zinc chloride, to get an average retention of one pound of salt per cubic foot of wood. He "stepped" some 50 red pine trees. The trees ranged in diameter (at stump) from five to eight inches, and in height from 24 to 36 feet.

After ten days' treatment the trees were dropped and trimmed. The cost of treatment, including cost of the preservative and cost of labor in cutting, treating, trimming, and

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One good heave and butt of tree is "stepped" into container of preservative. The preservative solution then is drawn up into stems, becoming uniformly distributed throughout all of sapwood



YOUR SHADE TREES



... Killing Shade Trees

By R. R. FENSKA

TREES seldom die of old age, but rather from the effects of disease, insect attacks, or environmental conditions, both natural (extreme temperatures, etc.) and acts of man. This article will treat only the last mentioned cause—the acts of man.

Shade trees have been killed by kindness, as well as by ignorance. A good example of killing trees by kindness is over-fertilization, especially with a high nitrogenous chemical fertilizer. There is a rule-of-thumb among tree men that the average shade tree in need of feeding should be given three pounds of tree food for each inch in diameter of the tree at breast height.

Therefore, some persons reason that if three pounds of tree food are good for the tree, ten pounds must be better. The tree, of course, suffers from "indigestion." This person has forgotten his elementary plant physiology and the functions of the root system.

Botanists have found that the root hairs absorb moisture from the soil when the solution within the root cells is of a greater concentration, or density, than the water surrounding the cells on the outside. When water is taken from outside the cell walls it passes through the membrane of the cell walls into the solution within the cell in an attempt to bring about an equal concentration both inside and outside the cells. This action produces root pressure, or osmosis, and forces sap into the trunk of the tree.

Now suppose that we have an extra heavy concentration of plant food nutrients *outside* the walls of the root hairs. What happens? Instead of the water passing into the cells from the soil solution, just the reverse takes place. The water in the cells is drawn outward in an attempt again to equalize the concen-

tration of solutions. This, of course, draws the water *out* of the roots and causes the trees to wilt, and sometimes to succumb. Thus we have killed the tree with kindness, by over-feeding with highly concentrated fertilizers.

A warning should also be sounded here regarding the practice of placing "green" animal manures, especially horse manure, around the base of small evergreens. Such manures are too "hot" for the small tender roots of the average evergreen in a base planting around the house.

If one does not know that an excessive amount of fertilizer has been used on a tree it may be difficult to diagnose the cause of the death of a tree. Yet, to the trained eye there are certain characteristics which will indicate just what has happened. However, it is always easier to find out what ails a tree if one knows its history and what treatment it has received.

Killing shade trees through ignorance is more frequent than people realize. The root systems of trees have been damaged through application of the so-called "weed killers" on lawn areas. This is especially true in the case of trees with shallow root systems. Of course, the weeds are killed, but soon the foliage of trees on the area begins to look sickly and at the end of a year or two the trees also are dead. In the same category is the practice of putting chloride or salt solutions on driveways during the winter months to melt the ice and snow. If this solution eventually drains onto areas with trees it will kill the root systems and of course the trees.

Fuel oil spilled on the ground from over-flow pipes has killed both evergreens and shade trees. In such cases the oil saturated soil should be

replaced with uncontaminated soil.

Leaks in gas mains is sometimes the cause of the death of trees along our city streets. When the leak has been repaired and the soil properly aerated another tree can be planted safely.

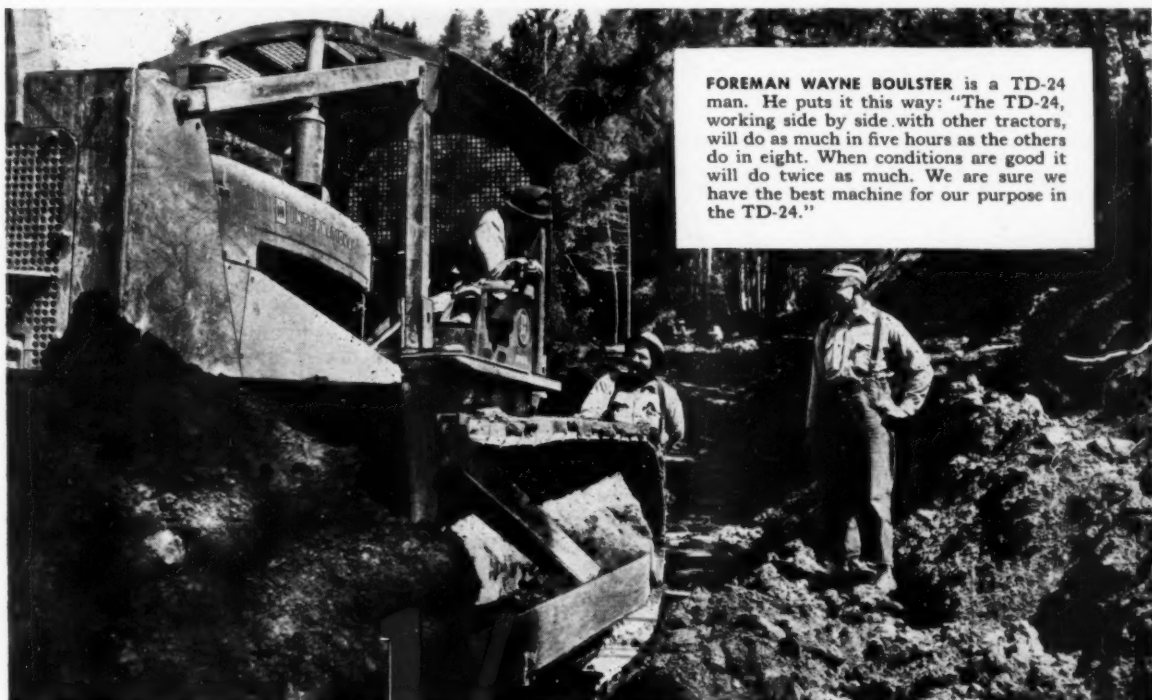
Killing trees with spray solutions used for the control of insects sometimes occurs. This is especially true in the case of an oil spray. Certain trees will be killed regardless of when they are sprayed with oil. These include sugar maple, black walnut, American beech, Japanese maple, butternut, magnolia, yellowwood, Douglasfir, true firs, cryptomeria, hemlocks, Japanese umbrella-pine, retinospora and yews (*Taxus*). The Colorado blue spruce will lose its "bloom" or bluish color when sprayed with oil but this is not a permanent injury.

Even such a common spray material as arsenate of lead cannot be used on certain trees, like the peach tree, without stripping it of all foliage and injuring the small twig growth. It is on the current twig growth that the following year's fruit crop is produced; hence, the seriousness of using the wrong spray material on certain trees.

The trunk of many a shade tree has been girdled by the application of an injurious preparation on the bark in an attempt to prevent certain insects from crawling up the tree. Young trees with a thin bark should not be banded with a coal tar preparation since such material contains a toxic substance which may penetrate the young bark and reach the cambium (growing tissue) of the tree. When this happens the tree is girdled by the toxic substance, which causes suffering and sometimes death.

An oil paint applied to the bark of sugar maples with a diameter of

(Turn to page 50)



FOREMAN WAYNE BOULSTER is a TD-24 man. He puts it this way: "The TD-24, working side by side with other tractors, will do as much in five hours as the others do in eight. When conditions are good it will do twice as much. We are sure we have the best machine for our purpose in the TD-24."

"Saves 1/3 of Blasting and Powder Cost"

Three TD-24s Build 62 Miles of Roads
for Arcata, California, Logger



C. C. Vander Jack, owner of the Snow Camp Logging Company, faced a tough job.

Two thousand feet high in the Trinity National Forest was a stand of 400,000,000 board feet of fir and redwood. Enough for ten years cutting if roads could be built into it.

The same roads would give access to another billion board feet behind it—if they could be built. Today, they are being built, sixty-two miles of rugged mountain roads. The kind that strain equipment to the utmost. Three International TD-24s are doing the job.

Here in Vander Jack's own words, is why the Big Red Champs are doing such a great job: "One item that figures high on mountain road building is blasting. We cut one-third off the normal amount since those big red

machines began tearing out rock that our other tractors barely scratched.

"We bought our first TD-24 and tested it thoroughly. Here was a match for any mountain. Now, with three of them, we are confident of success."

That's the word that's out in the logging shows—it's the TD-24 for power, speed, and the extra push of a solid drive when you need it.

All this, plus complete field service, makes "Big Red"—the International TD-24—champ of the crawler market. For all the facts, see your International Industrial Distributor. You'll be a TD-24 man from there on in!

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POWER THAT PAYS

A Way Back to Land Freedom

(From page 15)

percent of the entire United States? Do they know that everyone must pay for the high cost of having these lands administered by the federal government?

In some instances, the federal government pays the state a portion of the gross receipts in lieu of taxes. But these payments are not uniform as to percentage among the various bureaus, and they are far from uniform as to amount from year to year. Payments are made only when revenue is derived. When no timber is sold or minerals mined, no payments are made. With rate exceptions, the states and local governments receive less in the long run under any system of federal ownership than they would receive if the lands were properly held and operated by private, taxpaying owners.

How many people are aware that the more land the federal government owns, the easier it is for still more land to be acquired through the process that you call "trading stumps for stumpage?"

By this process, the timberland owner is invited to exchange his cut-over lands—which means his future productive capacity—for trees—not land—of the federal government. This type of exchange enlarges the federal holdings and reduces the productive land in private ownership.

The timberland owner is precluded from acquiring land of his own on which to practice good forestry, and broadly speaking, people are interested in good forestry and conservation practices.

Now it is true, of course, that there might be no particular harm in federal ownership of undeveloped lands—such as those of the public domain—so long as there was a program for disposal of such lands. But in this era of federal acquisition, we find the federal government has designs on 35 million acres of timberland to enlarge the national forests, and within the last few months, the Department of the Interior has withdrawn from disposal 112,000 acres of public domain forest lands in northern Arkansas.

A parallel story of land acquisition is contained in federal dam construction for flood control and power development. It is not necessary to quarrel with flood control to point out that the land behind the dams

will be permanently flooded. Private owners in the inundated areas are paid for their lands. This is true. But how are they paid? They are paid in dollars, not in land.

Consequently, private landownership is struck another blow. The productivity of the land under the management of free men is reduced by just that much.

How serious can this be?

As most of you know, one enterprising lumberman—Mr. Herbert Dierks—who has had a program of sustained-yield forest management on his timberlands of the Dierks Coal and Lumber Company—a man who has built an economic entity of continuous forest production—of sustained payrolls and permanent communities—now faces the loss of 60,000 acres of his timber-growing land.



Mabel, meet Al . . . He used to be a lumberjack.

A dam planned for the Angelina River in eastern Texas will permanently remove from production 200,000 acres of land, most of it forested, belonging to the Southland Paper Mills of which Mr. E. L. Kurth is president. And in western Washington and Oregon about 30,000 acres of private timberland have been cleared to provide rights-of-way for transmission for the Bonneville Power Administration. These are but examples. The vast program of federal dam building now contemplated jeopardizes not only landownership alone—but private payrolls—and on the other hand it increases the tax burden on the family budget.

There are ways out of this dilemma, and it is our job to find them.

A bill introduced last spring by Senator Guy Cordon of Oregon points in the right direction. It

looks toward the protection of private landownership when land proposed for inundation has had a history of good husbandry. His bill was designed to prevent federal dam and reservoir projects from interfering with sustained-yield timber operations.

It would provide for the exchange of private forest lands for government lands at the option of the private owner.

Instead of paying the landowner in dollars and taking away his productive facilities, the owner should be paid in kind with similar productive facilities. The bill has met with the opposition of the federal landholding bureaus. But, ironically enough, the very bureaus which oppose the bill are those which have always decried destructive exploitation of timberlands, and have been urging landowners to practice sustained-yield forestry.

Senator Cordon's proposal could provide relief from one phase of the federal land-acquisition program. The other phase—that of steadily increasing federal ownership of lands of all types—is one that demands study and a revision of federal policy, by the newly elected Congress.

Federal policy is the outgrowth of either of two things. First, the will of free people, or, second, the lack of interest of free people in maintaining their freedom. In that case, the bureaucrats determine what they believe should be the will of the people.

It is up to those who know the full meaning of the danger to arouse public interest and alert the American people to insist on Congressional action.

Your Association has consistently urged the retention of the maximum possible proportion of forest lands in private, tax-paying ownership, and, as most of you know, the Committee on Tax Education and School Finance of the National Education Association published a report on the status and fiscal significance of federal lands in 11 western states. This report appeals to me as good ammunition.

The report concluded that in the states concerned, the present situation of federally-owned real estate is confused and ambiguous, particularly with reference to taxation and the

so-called "in lieu" payment provisions. It is true that much of the federal land has never been on local and state tax rolls, but many acquisitions have made serious inroads on local tax bases.

The National Chamber feels strongly on this issue. It believes the Congress should provide for continuance of payments to state and local governments in lieu of taxes, but the payments should be based on valuation instead of on percentage of return.

Such payments should be extended to cover not only properties which are in competition with private enterprises, but also to the greatest practical extent such payments should be made upon properties held or removed from the tax rolls for other reasons.

The national platform of the Republican Party contains a plank affirming the need for a state-by-state study of the desirable relationship between federal, state and private ownership.

But we all know party platform planks. Sometimes they are not so securely nailed down. Those who best know the need of their fulfillment must exercise persistent vigilance. A plank can get lost in the shuffle of conflicting interests all too easily.

You have allies in your problems, and among them is the Chamber of Commerce of the United States.

I wish to quote the National Chamber's position on this vital national issue:

"The Congress should undertake an examination, by departments, of the federal real estate inventory to the end that all property, which, in the public interest, is best adapted to private ownership, be offered for sale as soon as possible and thus be placed on the tax rolls and in productive use by private enterprise.

"In order to provide more accurate data on federal lands not recommended for private ownership, it is further recommended that studies be undertaken of the problems involved in conservation and use of such lands, including their relation to lands in state and private ownership, such studies to be conducted in the several states by joint boards made up of representatives of federal, state and private landownership."

There is no doubt of a latent public interest in this problem, but it is imperative that the state-by-state and bureau-by-bureau study be made as soon as possible. The longer the

task is delayed, the more acute the problem will become, and the more impossible it will be to solve.

In proposing such a study, we do not advocate that all land held by the federal government should be turned over to private ownership. National parks, for example, and the research areas, forested lands necessary for watershed protection, certain military reservations and similar areas probably are best adapted to federal ownership. Acquisition, retention or disposal—in every case—should depend on what is best for the public interest.

It seems to me that the forest products industries should assume leadership in drafting and supporting appropriate legislation for study of the landownership problem.

Your industry has a fine record of good land husbandry. You have de-

veloped the wise use of resources—and you have developed it voluntarily and without benefit of federal subsidy. You are working with a renewable resource, and on your own lands are rapidly proving its renewability.

You have shown what free men can do!

Because the National Lumber Manufacturers' Association represents a very large segment of the wood-using industries, it is a natural organization to call together other groups interested in formulating sound policies of federal landownership.

Such groups might include the pulp and paper industry, several state cattle- and sheep-growers' organizations, the Council of State Governors, the taxpayers' associa-

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Roundup of Reaction

THE WASHINGTON POST, January 10—From several sectors of the West come reports that various private interests are expecting the new administration to adopt a more "liberal" policy on public lands. By "liberal" is meant a policy that, if it would not actually sell off large portions of the public domain, would at least permit the stockmen, woolgrowers, and lumbermen to determine the regulations for use. . . . We cannot believe this is true. Nothing in the statements of President-Elect Eisenhower or the new Secretary of the Interior, Douglas McKay, justifies the assumption that a retrogression in this vital element of public policy is in prospect. . . . What is important is that the new administration recognize that the interests demanding control of the public lands do not speak for the country or even a majority of the people of the West.

ARTHUR H. CARHART, writing for **OUTDOORS UNLIMITED**— . . . The original Land Grab attempt was projected with trumpets blowing, shouts and fanfare. This time the little group ramrodding the attempt to get Congress to cut them a big slice of pelf, have adopted tactics that are slick and smooth. While the "Proposal" will have the factors of "freezing" rights to ranchers and putting grazing dominant on our lands, and legislating literally tens of millions of dollars into pockets of a favored and monopolistic few, it will appear logical and innocent. Amendments after introduction may uncover its pilfering objectives.

THOMAS L. STOKES, syndicated columnist in **THE WASHINGTON STAR**—It is interesting that on November 13, less than 10 days after the election, Laurence F. Lee, president of the United States Chamber of Commerce, advocated this policy (that of selling portions of public lands to private owners) in an address before the National Lumber Manufacturers' Association. Also, two days before, November 11, the NAM's (National Association of Manufacturers) Pacific central region office in San Francisco released statements under datelines of various Western states in which most of the public lands are located, giving figures on the amount of public lands in each particular state. They emphasized, as did Mr. Lee, how this land, if sold, would go on the state's tax rolls and bring in revenue not now available. However, the federal government now makes payments to the states based on returns from the public lands. . . . Bills in Congress covering various phases of this "back to the states" movement, which is also a "back to McKinley" movement, point up the danger now confronting the public. Their enactment would carry us back beyond Theodore Roosevelt's day and nullify all the battles in the public interest that he inspired and which were won after so hard a fight.

Traditional GOP Land Policies

(From page 14)

this dual support has been accepted as proof that the national forests are based on sound theories of land management and will prosper regardless of which party is in power.

Long before the first Continental Congress, fears were expressed because of the reductions in available forest resources. These gained acceptance after passage of the Homestead Act in 1862 which resulted in increased pressures for western farm and forest lands. It seemed for a time that all the timber as well as all the remaining farming land would soon be exhausted. Men strove to get every accessible acre while it lasted, and those who couldn't acquire the timber for the public lands by legitimate means, felt no pangs of conscience when they helped themselves.

Wasteful lumbering was a natural result, fires raged without hindrance through the untended slash, and stockmen grazed the adjoining and intervening grasslands without restriction. Seeing this, a storm of protest swept the country. Public feeling reached such a pitch that even legitimate operators were charged with being "timber thieves."

In such an atmosphere the directors of The American Forestry Association petitioned Congress, in 1889, for an investigation of the forest reserves of the country, and for temporary withdrawal from sale of all publicly-owned forest lands. Realizing that administration of the public domain rested with the Secretary of the Interior, they also persuaded him to request a law authorizing the President to set aside publicly-owned forests as reserves. This was supported by an appeal from the American Association for the Advancement of Science calling attention to the part the western watersheds must soon play in the country's agricultural and industrial development.

President Benjamin Harrison was so moved by these, and other appeals, that he addressed a message to Congress urging appropriate legislation "to the end that the rapid and needless destruction of our great forests may be prevented."

Thus, at the request of a Republican President, a Republican Congress passed the Forest Reserve Act of 1891, under which the President is authorized to proclaim forest res-

ervations in any part of the public domain not "wholly or in part covered with timber or undergrowth." This general conservation measure is the initial legislation on which successive administrations have since built the national forest system.

This act is a historic marker recording a change in the attitude of Congress toward the public domain. Prior to its approval practically all legislation concerning the public lands was designed with a view toward eventual disposal of the lands to private ownership. This act turned the tables toward a program of land management for public benefit. Few suspected its enduring significance. Neither did anyone dream that within 20 years another Republican administration would enact a law to buy back and include as part of the newly-formed forest reserves, some of the lands then being disposed of to lumbermen.

The Forest Reserve Act was not a month old before President Harrison proclaimed a reserve adjoining the Yellowstone National Park, which his Republican predecessor, Ulysses S. Grant, had established in 1872. Within the next two years more than 17,500,000 acres were withdrawn in efforts to keep the timber on the publicly-owned lands out of the hands of speculators. This was good so far as it went, but a weakness was soon revealed. No provision had been made for protecting and administering these forests. The properties remained open to fire, and timber cutting and grazing was available with little or no hindrance.

No improvement toward effective administration or protection was made during President Grover Cleveland's second term, but he withdrew more land for inclusion in the reserves. Meanwhile, the public was increasingly conscious of the government's responsibility, so a nation-wide demand for effective administration arose, led by The American Forestry Association.

By the time William McKinley became President, feeling ran high, because so considerable an area of timberland had been "locked up." Much of the blame was laid at the door of President Cleveland. Partly to modify these latter withdrawals, and partly to provide protection and management for the lands already in the reserves, the incoming Repub-

lican Congress passed the Administrative Act of June 4, 1897. This had the effect of placating the lumbermen by setting aside the Cleveland withdrawals for nine months, thus temporarily reopening the lands for entry.

Its lasting effect was to restrict future withdrawals to reservations "for the purpose of securing favorable conditions of water flow, and to furnish a continuous supply of timber for the use and the necessities of the citizens of the United States." Further than that, it laid the ground for timber sales and protection. With an eye toward public relations, it authorized the free use of reasonable amounts of timber by farmers, settlers, and miners, for firewood, fencing, and building materials. William McKinley may therefore be credited with having rescued the forest reserves from the anomalous situation of being locked up without protection, and without provision for general use of the forest materials.

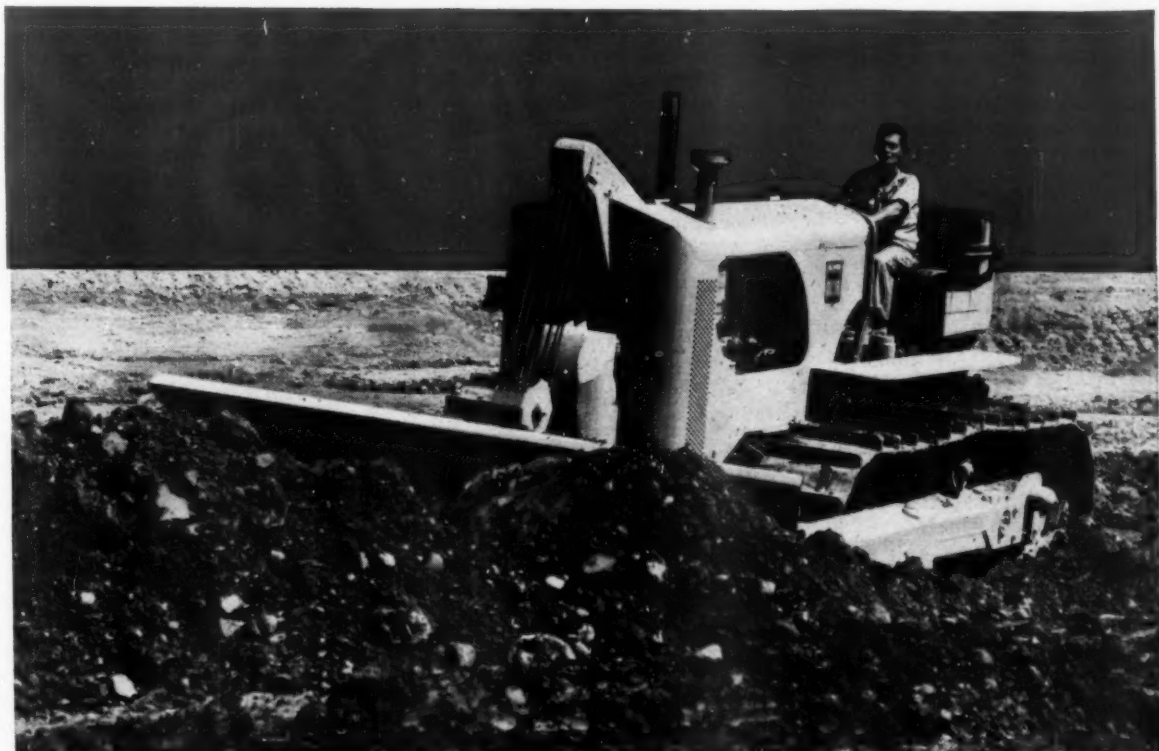
When Theodore Roosevelt entered the White House on September 14, 1901, the outlines of the national forest program had been sketched but the details were yet to be filled in. Not the least of the difficulties was the pulling and hauling, to which the reserves were subjected, between administrative agencies. Protection, such as could be afforded with scanty appropriations was provided by the General Land Office of the Department of the Interior. Surveys and mapping were performed by the Geological Survey of the same department. Meanwhile, over in the Department of Agriculture, the Bureau of Forestry was responsible for investigations in the uses of wood and for all research in forest matters.

President Roosevelt was quick to see the frustrations and inefficiencies inherent in such diversity of loyalties. Before the close of his first year in office, recommendations for reorganization of the forest responsibilities were included in a message to Congress. This signalled a fight between those who would conserve and develop the forests for long-time use, and those who desired their immediate exploitation.

Nearly four years passed before Congress fulfilled the President's re-

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Owners' pride... Operators' delight the **NEW OLIVER** "OC-18"

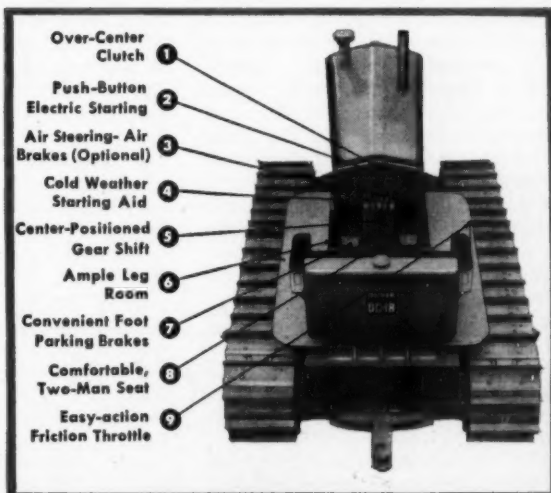


OWNERS can't say enough good things about the new Oliver "OC-18." They keep telling us how it does more work... how that full 133* drawbar horsepower gives it plenty of power for the really tough jobs... about its low operating and maintenance costs... and how the operators and mechanics like it.

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A complete line of industrial wheel  and crawler tractors



Traditional GOP Land Policies

(From page 28)

quest and authorized transfer of the forest reserves to the Department of Agriculture. This was on February 1, 1905. The transfer resulted in placing Gifford Pinchot in charge of them.

The close relationship of the new Bureau Chief with the Chief Executive gave startling impetus to the movement for forest conservation.

Identity of these properties was further recognized on March 4, 1907, when the forest reserves were christened national forests, and the administering agency became the Forest Service of the Department of Agriculture. At that time all the lands included in the national forests were west of the Great Plains, but extension of these reserves to the eastern states was foreshadowed in the same act that created the Forest Service. This was done by providing for two surveys of forest, land, and water conditions—one in the White Mountains of New England, and another in the southern Appalachians.

Another fill-in for the national forest program was accomplished in the Act of June 30, 1906. In this the Roosevelt Administration recognized the importance of making payments to local governments by authorizing the return of ten percent of all forest revenues to the states for support of public schools and public roads. A later law increased these payments to 25 percent of the gross receipts.

Thus, Theodore Roosevelt charted the course of conservation, knowing full well the significance of the agency he was creating. To him goes credit for having created the national forests, and for much of the enthusiasm with which the public has accepted the program for conservation of forests and natural resources. In less spectacular form, however, it remained for later Republican administrations to enact other far-reaching legislation. The first was the Weeks Act, signed by President William Howard Taft on March 1, 1911.

The act was sponsored by John W. Weeks, father of the present Secretary of Commerce, when the former represented the State of Massachusetts in the House. By providing the authority and the machinery for purchasing forests located on the headwaters of navigable streams and including them in national forests,

the Taft Administration established another historical marker in the nation's land policy. A cycle was completed and provision was made whereby lands once disposed of by the federal government could be reacquired and held for the public welfare.

The Weeks Act had been in operation 17 years when Jenks Cameron, in a Brookings report entitled *Development of Government Forest Control in the United States*, described it as having "marked the final passing of government forestry out of the tentative into the fixed and definite. Theretofore, the forest activities of government . . . had been only a withholding of the remnants of the nation's patrimony. Now they were to be . . . the actual buying back of forest lands which had been allowed to pass into private ownership. From the first position withdrawal was conceivable; but scarcely from the second. Mere conservation, a maintaining of the status quo, now had added to it definite creation, a moving forward."

Another section in the Weeks Act, no less far-reaching than that which provides for land acquisition, is the authorization for cooperation with the states which has made possible the present nation-wide forest protection program. This has since been expanded under the Clarke-McNary Act of June 7, 1924, so as to extend organized protection against fire to more than 85 percent of all forest and watershed lands in state and private ownership. The protective efforts of the 44 state foresters are now so effective that it is a rare year when even one percent of the protected land is burned.

Authority for exchanging standing timber on national forests for cutover lands in private ownership was initiated during the administration of President Warren G. Harding in the Act of March 20, 1922. Interest in this method of acquisition caused the Calvin Coolidge Administration to begin a long train of similar acts and amendments with that of February 28, 1925. On May 11, 1927 the Coolidge Administration was the first to recognize public recreation as a function of the national forests. This was in the form of an appropriation of \$10,000 for the construction of camping facilities "to care for the steadily increas-

ing demands of automobile tourists."

It remained for President Coolidge to sign two acts which have gone far to round out the national forest program started by earlier Republican administrations. These are the Clarke-McNary Act, to which reference has already been made, and the McSweeney-McNary Act of May 22, 1928. The former is widely recognized for the manner in which it expanded the cooperative principal of the Weeks Act to provide more effective protection of State and privately-owned forests from fire.

The McSweeney-McNary Act is essentially a charter under which the present nation-wide program of forest research has been developed. Its results apply to all forests, not the least of which are those administered by the Forest Service. Other forest legislation has been enacted during the past 20 years of Democratic leadership, but none has altered the national forest pattern created earlier by Republican administrations.

An impartial study of the tax-free federal lands such as appears to be contemplated in the public lands plank of the Republican party platform could be revealing and undoubtedly would be helpful. It would, of course, not be limited to the 181,145,764 acres in national forests, but would extend to all the 455,000,000 acres of publicly owned and administered lands. The findings can be expected to clarify many questions, and especially the one concerning the traditional Republican public land policy.

They would show, for instance, that the states and local governments where 181,145,764 acres of national forests are located received nearly \$18,000,000 during the fiscal year ended June 30 of last year. This was returned, according to law, from gross receipts of some \$71,402,511, and is additional to the sums spent for roads and trails within the forests, used freely by the public. This amount available for state activities varies from year to year according to the way the resources are used. Generally speaking, however, it has shown a consistent rise through the years. How it compares with annual tax returns from com-

(Turn to page 32)

AFA'S FOREST CLINIC

Engelmann Beetle

By C. L. MASSEY

Distribution: The Engelmann spruce beetle is the most serious insect enemy of the Engelmann spruce forests. It is known to have killed large amounts of spruce in the Rocky Mountain region before the beginning of the century. It is probably present in small numbers in all Engelmann spruce stands. Since 1939 it has been epidemic in western Colorado and has destroyed more than four billion feet of timber.

Hosts: The Engelmann spruce is chiefly affected but the beetles also attack and kill other trees in the infested stands such as blue spruce, white spruce and lodgepole pine.

Symptoms: It is rather difficult to detect a new infestation of the En-

(Reprints of this and subsequent Forest Clinic articles will be available in quantity upon request.)

gelmann spruce beetle. When pine stands are attacked by the pine bark beetles, tell-tale pitch tubes appear on the trunks of the trees and the needles soon show a change of color to a sickly yellow-green. This is not true in the spruce beetle infestation. The needles may not show a change in color until a year after the attack. Then they turn yellow and fall from the tree.

Very few pitch tubes show up and about the only way to discover newly infested trees is by close examination of each tree for the reddish-brown boring dust in the bark crevices and around the base of the tree. Sometimes the dust is not conspicuous although there may be as many as 150 holes per square foot of bark. Many entrance holes are concealed by bark flakes. The numerous holes made by the brood emerging from the tree are of little help for the damage by that time has been done.

Habits: The Engelmann spruce beetle prefers the larger, more mature trees. However, after the larger

trees are killed, trees of all diameters and degrees of vigor are attacked. Once under the bark the beetles bore egg galleries in the soft living tissue, slightly engraving the wood. These galleries are approximately five inches in length extending upward parallel with the grain of the wood except for a short crook at the lower end. The lower part of the gallery is filled with boring dust and pitch. When the galleries are numerous enough to girdle the tree, it dies.

The Beetle: The adult beetle is reddish-brown to black. Some have a two-toned effect with the forward parts darker than the wing covers. They are cylindrical and about one-fourth of an inch long. The eggs are oblong-ovate, pearly white, and tend to shine on exposure to light. The larvae are stout cylindrical, grubs about the size of the beetles. They have brown heads, are legless and the white bodies are wrinkled and folded. The pupae are smaller and creamy white.

Life History: The eggs are laid in alternate rows at the sides of the galleries. As many as 140 eggs have been counted in a single gallery. The number of larvae produced under a square foot of bark may amount to more than 500 but on an average will run about 300. A large

proportion of the brood however, does not mature. The number of beetles that emerge per square foot of bark is approximately 150. The beetles attack only the stem of the tree. The attacks may extend up to heights of from ten to 50 feet. Many adult beetles having completed their galleries in one tree emerge and attack other trees. Usually, when beetles attack more than one tree they remain in the first tree over winter and emerge to attack the second tree the following spring.

Natural Control: Three natural enemies of the Engelmann spruce beetle are: woodpeckers, insect parasites of which a braconid parasite known as *coelordes dendroctoni* is the most important and extreme fluctuations in winter temperatures. The woodpeckers are the most effective bird predators. Three kinds abundant in Colorado are: the Rocky Mountain hairy, the downy and the alpine three-toed woodpeckers. When the infestation is not too extensive the birds are usually effective in holding it in check. They may completely strip the bark from an infested tree and feed on the larvae and pupae as well as the adult beetles. In general the birds prefer to work the upper stems and the thinner-barked trees. Lar-

(Turn to page 51)

This beetle-killed stand of Engelmann spruce attests to the wholesale destructiveness of which insect hordes are capable





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GOP Policies

(From page 30)

parable lands will be revealed by the study.

The study will also show the extent to which these publicly-owned forests are being used by the public. It will show how far-sighted were the leaders of the American Association for the Advancement of Science, when more than 60 years ago, attention was directed to the part these mountain watersheds would play in the agricultural and industrial economy of the country. Perhaps these studies will go farther and indicate ways in which forest management can improve the quality and increase the quantity of water so vital to farms and cities at the base of the mountains and out on the plains.

Certainly, they will reveal that more than 30 million people use the national forests each year as places in which to picnic, to ride or camp, and to fish and hunt. Like other forest uses, this has been growing from year to year.

Public interest in matters relating to the national forests and other publicly-administered lands is evidenced in an article by Thomas L. Stokes, in the *Washington Evening Star* of January 7, 1953. Writing under the title *THREAT TO NATURAL RESOURCES*, he described Mr. Lee's statement and a comparable one released by the National Association of Manufacturers, as part of a "back to the states" movement. Bills before the new Congress, designed to carry out some of their proposals, were characterized as "projects of the spoiler variety." Going further, he declared their "enactment would carry us back beyond Theodore Roosevelt's day and nullify all the battles in the public interest that he inspired and which were won after so hard a fight."

It is well, therefore, that the public lands plank of the Republican party be not forgotten, but given serious consideration by an appropriate Congressional committee. The new administration will need all available facts. These can best be secured if it follows out the promise of "an impartial study of the tax-free federal lands and their uses to determine their effects on the economic and fiscal structures of our states and local communities." The conclusions of such a study can have far-reaching influence upon the Republican public land policy of the future.

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Land Freedom

(From page 27)

tions, the National Education Association and local and state chambers of commerce.

Such a group, in drafting corrective legislation, might give consideration to these points:

First, as to registration of federal lands. A description of all lands under federal ownership should be registered with the Department of Interior and recorded statistically to show the annual rate of acreage increase or decrease. This would end the present confusion as to the exact extent of federal landownership and give us an annual picture of what is happening.

Second, ask the Congress to set up joint boards representing federal, state and private landownership to provide more accurate data on federal lands and to establish a criteria on which to base the type of ownership.

Third, ask the Congress to undertake an examination of federal lands to see what property is best suited for private ownership to the end that it be offered for sale to the public, under proper safeguards, as soon as possible and thus be placed on tax rolls and in productive use by private enterprise.

And, fourth, during the period of such registration and examination to suspend all acquisition, through trades or otherwise, except those for military use.

Your stake in this problem is a large one, but the stake of the American public is an even greater one.

The landslide vote of November 4 is no guarantee of land freedom. As free men, we must fight our own battles and present our own case. You have a strong case, for the trend toward government ownership of land has jeopardized the sovereignty of states; it has added to the tax burden; it has jeopardized the revenue for elementary and secondary schools, for state colleges and universities, and for community purposes. It is potentially a menace to all private enterprise from which the financial and defensive vigor of our country is derived.

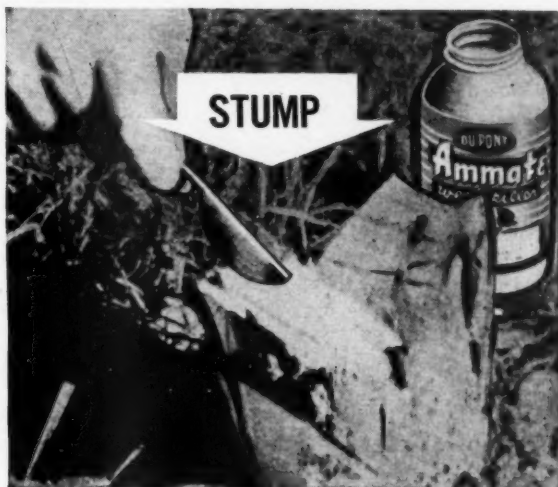
There is a great deal of work ahead, but it is well worth the doing — and well worth the doing now while people are newly receptive to the corrosive influence of topheavy government and newly awakened to the lasting values of initiative, enterprise and freedom.

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1 For large trees, hack overlapping cuts into the sapwood around the trunk. Pour in enough "Ammate" solution (4 lbs. to a gallon of water) to wet the cut surface all around the tree.



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2 On tough trees, chop notches every six inches near the ground. Put a tablespoonful of "Ammate" crystals in each notch. This deadens even blackjack oak with little resprouting.



4 On seedling trees or sprouts, spray the green leaves and stems when they are fully leafed out using "Ammate," $\frac{3}{4}$ lb. per gallon of water. Let trees or sprouts stand a year for best kill.

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Woodsmen

(From page 19)

ities of public ownership will come a consciousness of the respective provinces of the various interests in our national forests. The province of industry can be no more and no less than the inheritance of its legitimate birthright."

The Silver Jubilee of the Weeks Law closed forthwith, but those who had come to celebrate left with the message of a local woodsman who raised no doubts as to where he stood in the complex problem of priorities in the administration of national forest resources.

Fifteen years and a good many speeches later it was the Honorable Sherman Adams, then serving his second term as Governor of the State of New Hampshire, who welcomed to his Executive Offices the arrangements committee planning The American Forestry Association's annual meeting of 1951, held jointly with The Society for the Protection of New Hampshire Forests, at Jefferson, New Hampshire. It was the Governor himself who delivered the address of welcome, presented Tree Farm awards, sparked the square dance, and otherwise contributed toward the success of that memorable occasion.

What of the man himself and the background upon which he has built his convictions on forest land management? In 1899 he was born in the village of East Dorset, Vermont where his father tended store on what was to become the eastern boundary of the Green Mountain National Forest. His wife, Rachael, was born soon after at Mount Holly on the northern fringe of the southern unit of the present Green Mountain National Forest.

Sherm spent his boyhood amid the compact industrial surroundings of Providence, Rhode Island. Four years at Dartmouth, where he became president of the Dartmouth Outing Club, proved an effective antidote. He decided to cast his lot among the hills of northern New England, at first as a scaler for the Black River Lumber Company.

His sound business judgment, his feel for the woods, and his interest in people paved the way for steady advance in responsibility. He shortly became woods superintendent for the Parker-Young Company, then operating a hardwood and paper

mill at Lincoln on the headwaters of the Merrimack River.

For nearly 20 years it was his responsibility to locate, cruise, log and deliver to the mills the 150 cords of pulpwood needed every day of the year to keep its digesters operating and an additional five to ten million board feet of hardwood used in its sawmills annually.

Thus, he came to learn woods operations from the net volume of a single log lying on the windswept banking grounds to the value of large tracts of standing timber needed to satisfy the appetite of the company's operations and to provide steady employment for its workers.

During Sherm Adams' regime the Parker-Young Company (now the Franconia Paper Company) approached the end of its railroad logging operations and finally closed down in 1947. Improved truck roads spelled the end of the celebrated (even Longfellow wrote a poem about it) log drive down the Mad River, where Sherm had been the "push" for many seasons.

Clear-cutting the steep White Mountain slopes also ended about that time, not because of any accepted change in silviculture on private lands, but because there were no more such extensive old-growth chances to scalp, once the Jobildunc Ravine on Mount Moosilauke and Cedar Brook under the sunset slopes of Mount Hancock had been logged.

The silviculturists still argue whether such heavy cutting is necessary, even on the shallow soils of windswept mountain slopes where partial cutting is always a hazard. The loggers, led by Sherm Adams, voiced the usual apology that roll-way logging was the only "economic" operation on such locations, that capital improvements like railroads require a heavy cut to offset the costs, and that the valuable softwoods will re-establish themselves, given time. Both sides of the controversy agree on one point—if fire once gets started in such an ocean of slash, the next timber crop will be a long time coming. Countless areas in the White Mountains thus cut before Federal acquisition bear silent witness to the disastrous consequences of slash fires.

Twelve short but eventful years ago the educated lumberjack of Lincoln decided to enter competitive public service, despite the nominal financial inducements. In 1940 he was elected to the New Hampshire House of Representatives drawing down his \$200 per session compensa-

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tion while serving as chairman of its Committee on Labor. In 1942 he was elected Speaker of the House, drew an additional 50 dollars of Yankee cash, and held the distinction of presiding fairly but firmly over the 443 members of the House, third largest deliberative body in the English-speaking world.

Sherman Adams climbed the next rung in 1944, when he became one of the two Congressmen representing New Hampshire at Washington during the start of President Roosevelt's fourth term.

Two years later, in 1946, he ran against the incumbent Governor of New Hampshire, losing in the recount by 157 votes out of a total of 46,024 cast. It was a bitter defeat, but later events proved that this delay was fortuitous, enabling him to serve his first term as governor in 1949-50.

In the eventful spring of 1952, while serving his second term and well-established leader as of his party, Sherman Adams appreciated the significance of General Eisenhower's star upon the horizon and threw the full impact of his powerful influence upon the Republican voters of New Hampshire, the first in the nation to register their opinion in the Eisenhower-Taft competition.

The consequence is familiar recent political history. An educated woodsman from the White Mountains of New Hampshire is now the Chief assistant to the President of the United States.

Conservation leaders curious as to his philosophy toward their cause will find ample evidence of his established leanings. First, he realizes the economic and social consequences of the continuing drain upon our timber supply. In 1948, he stated, "Regardless of statements from some sources indicating that growth has exceeded the cut in the Northeast in recent years, the depletion of merchantable timber resources since 1939 is severe. The problem, as we (Northeastern Lumber Manufacturers Association) view it, is not an insurmountable one. We believe that through the cooperation of landowners, lumber producers, state and federal agencies, and the public, the basis of a sound public forest policy can be determined and followed."

Sherman Adams well understands the public need for forest land acquisition under certain circumstances and the opportunity this policy provides to prevent hasty exploitation (Turn to page 41)



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Winter has been established as a good time for basal bark application to control weed trees shading out young pines and other desirable timber species. This new forest practice—spraying the basal 12 to 15 inches of brush stems or tree trunks with Esteron 245 in kerosene, diesel or fuel oil—is more economical than cutting, and regrowth is eliminated or reduced to a minimum. Chemical release is a new, effective tool for progressive silviculturists.

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SAN JUAN WILDERNESS—San Juan National Forest, Colorado. Two 11-day expeditions—August 15 to 25 and September 1 to 11. Cost, \$215 from Durango.

CASCADE CREST WILDERNESS—Snoqualmie and Gifford Pinchot National Forests, Washington. One 13-day expedition—August 17 to 29. Cost, \$215 from Yakima.

INYO-KERN WILDERNESS—Inyo National Forest and Sequoia-Kings National Park, California. One 13-day expedition. Dates and costs not yet confirmed.

PECOS WILDERNESS—Santa Fe National Forest, New Mexico. One 12-day expedition—Dates (early September) and costs not yet confirmed.

Write or wire for detailed information and reservations.

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Smoky Saddle Trip

For those robust individuals who seek the tonic of a spring vacation in the mountains, The American Forestry Association this year again is offering a ten-day horseback trip through the Great Smoky Mountains of North Carolina.

As the first of this year's AFA-sponsored expeditions, the trip has been timed to catch the colorful festival of wildflowers and flowering trees—from May 20 to 30.

Headquarters for the party of 20 experienced riders will be the well-appointed Cataloochee Ranch on Fie Top Mountain near Waynesville, North Carolina. This thousand-acre sheep and cattle ranch is situated on the border of the Great Smoky Mountains National Park.

The itinerary provides for a three-day pack trip in the Park with interesting rides from a base camp, including a ride to the crest of Mt. Sterling. Seven nights will be spent at the Cataloochee Ranch, with rides out each day except Sunday, which will be left open for church, rest or short rides. Some of the interesting points to be visited by the riders are Sheepback Lookoff, Purchase Mountain, Paul's Gap, Deep Gap, and Balsam and Spruce Mountains.

The complete cost of the ten-day trip, which should be made by experienced riders only, is \$175 per person. Riders will be met in Asheville, North Carolina on the morning of May 20 and will be returned to Asheville in time to meet outgoing trains and planes on May 30.

Equipment furnished by the Cataloochee Ranch includes all food, twin-bedded rooms with connecting baths, guides, horses and saddles and camping equipment. A few sleeping bags (but not air mattresses) will be furnished at a rental fee of five dollars.

Riders should bring good warm outdoor clothing—flannel shirts, jeans, ski or long underwear, poncho or raincoat, sturdy shoes or boots, jacket, hat of some sort that won't fall off, and a flashlight. Camera bugs should bring along their cameras. There'll be plenty of pictures to "shoot."

Any man or woman in good health and with a reasonable amount of riding experience is eligible to make the expedition. Riders need not be expert, but it is essential that they be able to handle a horse well.

A Woodsman in Washington

(From page 38)

of extensive timber tracts and to relieve industry of the burden of carrying charges for many years before another cut. It was he who helped negotiate the Waterville Valley and Pemigewasset East Branch purchases in the White Mountain National Forest, largest single acquisition in that area for many years.

In approaching the national timber access road question, he will be reminded of his own experience 20 years ago when the Tripoli Road, built by the Civilian Conservation Corps, provided an ideal "go-back road" for harvesting the great timber reserves of the Waterville Valley by his company.

In the field of recreation developments, he has witnessed the transformation of Campton Pond, which he once used as log storage for his own operations, into one of the most useful swimming, picnicking and camping sites in the White Mountains.

Sherman Adams is "sold" on local advisory boards. In fact, he was the author of the 1941 New Hampshire

law creating forest advisory boards and was the first chairman of the Grafton County Forest Advisory Board.

He staked his political future on persuading a rather indifferent General Court to adopt the principle of the timber severance tax. It was a close test when the Speaker of the House decided an unprecedented 163-163 tie vote to save the bill from defeat, but the law has been "on the books" for nearly four hectic years. That, however, is another story in itself.

The new face in the Executive Offices of the White House is bound to have a sympathetic interest in better located and marked forest trails. As a student at Dartmouth he hiked 83 miles during a single 24-hour period across the foothills of the White Mountains from Littleton to Hanover. That trek included 23 miles on trails and woods roads involving a climb of 5600 feet.

Advocates of any changes in the timber sales policy of the U. S. Forest Service or any other federal land



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RHODODENDRONS LOW AS 37½¢

Fine Young Plants, 12-in. High. Slender now, will grow bushy. Small Ball of earth. Pay express (about 8c a plant) on arrival.

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KALMIA	(Mtn. Laurel), pink-white	in June	—\$42.00

ALSO LARGER:

Any five of above 1½ ft. BB bushy specimens (4 years older, 12 times heavier) for \$16.75.

OFFER A

5 each of 4 named varieties at left
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6-8 ft.	20.00	180.00
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populifolia (Cray) 4-6 ft.	15.00	95.00
papyrifera (paper) 4-5 ft.	18.00	125.00
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LIQUIDAMBAR (Sweet Gum) 4-5 ft.	14.00	120.00
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Borealis (rubra) Red Oak 5-6 ft.	25.00	160.00
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SORBUS (Mountain Ash) 4-5 ft.	19.00	175.00
TILIA (American Linden) 4-5 ft.	15.00	120.00

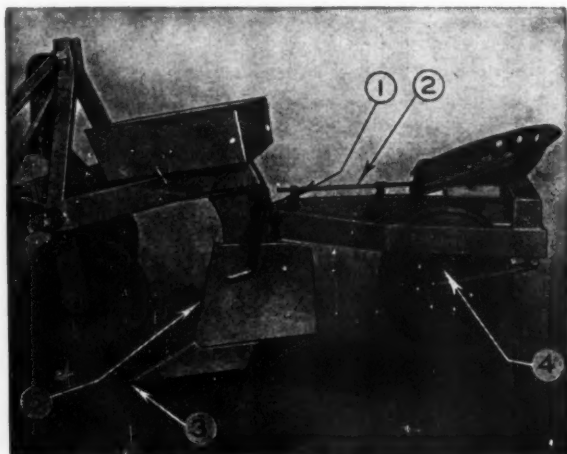
Spring 1953 Short Guide

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manager should have their case clearly in mind before pleading their cause at the White House. The new No. 2 man has bought more national forest stumpage for his own operations than even Paul Bunyan could harvest in many a season.

Governor Adams' platform on forest conservation has been set forth on many occasions, but perhaps at no time more clearly than when he delivered his inaugural address at the outset of his first term as Governor. Said he on that occasion. "The state forest fire control program is so clearly in the public interest that it is hardly deniable . . . The work of the extension service in forestry should be supported and encouraged. . . . I recommend the exemption of standing timber from the property tax and the imposition of a yield tax to be levied and collected at standard rates by the towns . . . The state should encourage self-regulation of the cutting of timber on private forest land. An aggressive program of education will contribute to a better understanding of this problem . . . Better forest management is an essential part of sound conservation . . . The improvement of both the quality and quantity of our timber resources will result in more income and greater employment in forest industry . . ."

At least three of the Adams traits that have confounded his recent political associates are nothing more than a result of his years in the woods.

He is an "early bird," preferring to have a running start for the days work. As a "morning man," he long since learned that daybreak is the time to get things started, whether a log drive down the Mad River or drafting an address for a notable gathering.

He frequently carries his lunch to the office, just as any far-sighted woodsman tucks a cold meal in his pocket before striking out for the day's work.

He is sometimes abrupt, appearing almost rude in the opinion of some thin-skinned colleagues, but those remarks are nothing more than the direct language of the logging camps, rather than the suave verbiage of the politician.

Probably no single incident illustrates Sherman Adams' personal interest in forestry and his desire to complete a job once started than occurred at the state capital on January 7. Three hours after he started to deliver his "ex-ogural" or fare-

well address to the General Court, he formally accepted in his Executive Offices during the closing hours of his administration a detailed report submitted by the Governor's Forest Policy Committee, whom he had appointed during his last year in office. There he thanked his for-ester-associates of the past years for their help in drafting the report and left for the new state administration a carefully prepared prescription for the forest land ills of New Hampshire.

That was Sherman Adams' final act as Chief Executive of the state he had served so well. He left forthwith to assume his national duties as the right-hand man of the new President of the United States.

Not since Gifford Pinchot rode through Rock Creek Park with Theodore Roosevelt have the conservationists of the country had a more sincere supporter of their cause and one whose knowledge is based upon practical, first-hand experience so close to the White House.

The Big Wheels

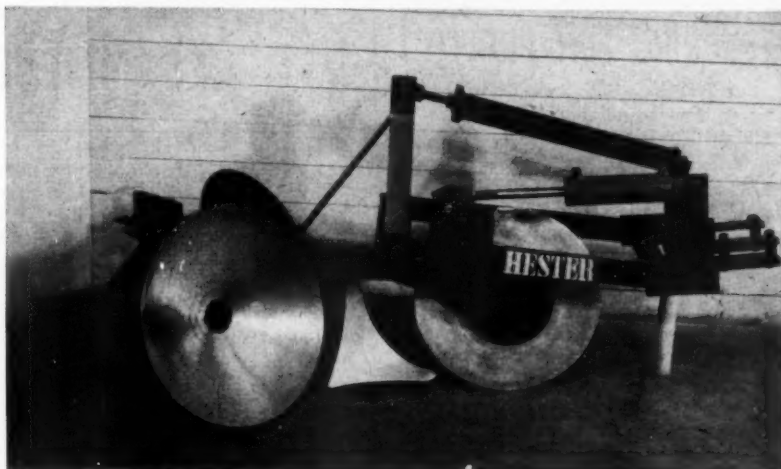
(From page 18)

nants of red pine near Lovells, Crawford County, in 1927. He saw them in use in 1928 near Hulbert on a hardwood logging job in western Chippewa County.

Hans C. Milius, of Brooks-Scanlon, Inc., Bend, Oregon provided the following information concerning the passing of the big wheels in Oregon:

"In 1928 we replaced the horses in our operation with 60 caterpillar tractors. However, we continued the use of high wheels by shortening the tongue to facilitate attachment to the tractor drawbar. In 1932, we replaced all our high wheels with logging arches. These arches moved on a track-laying type running gear and were very much similar to the conventional logging arch in use by us now. We are not using at the present time any high wheels and we do not know of any operation in Washington or Oregon where such equipment is used."

Thus, the advent of power machinery brought the era of big-wheel logging to a close. The giant wheels which rolled across the continent and into many foreign lands came at last to a creaking stop in 1936 when the factory in Manistee, Michigan was closed for lack of business.



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The plow is mounted to the tractor swinging drawbar which allows it to follow in sharp curves. A unique free-floating hydraulic lift lets the plow ride over logs and rocks, provides even depth of cut over rough terrain, yet makes it easy to lift plow clear of ground for transporting, loading and to get in and out of tight corners. Timken bearing equipped throughout. At present for International TD6 only. Other models forthcoming.

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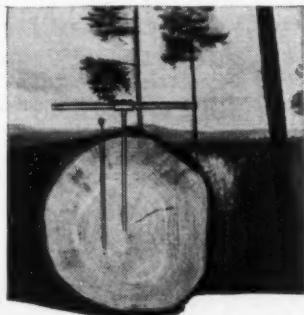
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Because the Meylan Saw will enable a man of average height to prune 9½ ft. from the ground, it has made a saving in pruning coniferous plantations as great as 25%.

The Saws are available for prompt shipment, delivered to any address in U.S.A. at the following prices.

M-414 Meylan Saw, complete with 16" blade..... \$11.60

M-414 Meylan Saw, complete with 18" blade..... \$12.00

**BARTLETT No. 114B
PRUNING SAW**



**114B—Special Utility Saw
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RECOMMENDED READING

Forests for the Future (The Story of Sustained Yield As Told in the Diaries and Papers of David T. Mason—1907-1950), edited by Rodney C. Loehr. Published by the Forest Products History Foundation of the Minnesota Historical Society, Saint Paul 3, Minnesota. 283 pages. Price \$3.50.

Diaries of crusading men are almost invariably of interest and this one is no exception. Practically every major figure in forestry since 1907 shows up in Mr. Mason's entries at one time or another, many of them dozens of times.

In a preface, F. K. Weyerhaeuser comments, "The diaries of David T. Mason show in graphic form the active life of a man who knows the forest lands of the United States intimately, who has met and known many of the principal lumbermen and timber owners, and who for the past 25 years has carried on a continuous personal crusade to promote sound forest management on privately-owned lands. He is a great believer in the principle of sustained yield forest management and has never missed an opportunity to discuss that subject with anyone who would listen. Many lumbermen who thought of forestry as the dream of idealists have become believers and practitioners of good forestry through his efforts. . . ." "FORESTS FOR THE FUTURE" is the most recent accomplishment of the Forest Products History Foundation founded in 1946 to establish a bibliography of the forests products industry and to collect and preserve the records of that industry.

Scenic Guide to Colorado, by Weldon F. Heald. Published by H. C. Johnson Scenic Guides, Susanville, California. 100 pages, illus. Price \$1.50.

Another in a series of guides of our Western states, the author has alphabetically arranged all major scenic areas and points of interest, together with photographs and maps, to give the reader—or traveler—a short resume of the delightful beauty of Colorado. For the adventurer, Colorado is a gem-hunter's Paradise. There are maps disclosing many of this state's finest mineral and gem areas.

Forest Management, by H. Arthur Meyer, Arthur B. Recknagel and Donald D. Stevenson. Published by Ronald Press Co., New York. 290 pages. Price \$6.

This is a textbook on forest management that gives a complete coverage of the subject. Its conciseness, simplicity of expression and lack of involved technical discussions makes this a textbook that the student of management can read with interest and satisfaction. The text is divided into four parts under the headings: Introduction, General Organization of Forest Property for Management, Forest Regulation and Management Plans. The book contains 15 chapters and each is provided with a bibliography for references and collateral reading.

When ordering books—reviewed on this page or listed in The Bookshelf—remember that your AFA membership entitles you to a ten percent discount. Order through the Book Department, The American Forestry Association, 919 17th Street N.W., Washington 6, D. C.

Flowers of the Southwest Mountains, by Leslie P. Arnberger and Jeanne R. Janish. Published by Southwestern Monuments Association, Santa Fe, N. M. 112 pages, illus. Price \$1.

An engaging companion on any trip in the mountains of the Southwest which will introduce one to the trees, shrubs and flowers that will be encountered above the 7000 foot elevation. This completes the series of three booklets describing the flora of desert, mesa and mountain in Arizona, Colorado, New Mexico and Utah and the desert areas of California and Texas. The others are "Flowers of the Southwest Deserts" and "Flowers of the Southwest Mesas." Excellent line drawing illustrations of flowers, leaves, stems and fruit make identifications sure and easy.

Reclamation in the United States, by Alfred R. Golze. Published by McGraw-Hill Book Co., Inc., New York. 437 pages, illus. Price \$8.

The purpose of this text is to provide material for college courses in

engineering and economics relating to reclamation, and to provide reference material for research or review of the reclamation programs of the United States.

This is a comprehensive treatment of the entire subject. The irrigation and hydroelectric power components have been brought together and their interrelations and interdependence developed. All recent advances in the field of water resource development in the western states have been covered. It shows the development of the multiple-purpose project, the growth of the private and public power program in the West, and economic justification for a modern reclamation project.

Numerous tables, charts and photographs supply reference information.

The Best Loved Trees of America, by Robert S. Lemmon. Published by Doubleday. 254 pages, illus. Price \$3.50.

Here are all the facts everyone wants to know about fifty-nine of the best loved native trees in America. Their appearance and seasonal variations; striking characteristics; regions where found; blossoms, fruit, and root systems; growth; and commercial or decorative use are fully covered in this concise, clearly written, non-technical book. The book is illustrated with excellent photographs picturing the entire year's cycle for each tree. Homeowners will find the book helpful in answering questions relating to the choice of trees for landscaping, and every nature lover will want to add this to his library.

Migration of Birds, by Frederick C. Lincoln. Published by Doubleday & Company, Inc., Garden City, New York. 102 pages, illus. Price \$1.

A phenomenon of seasonal movement occurs in almost every species of birds, and in this fascinating book, noted biologist Frederick C. Lincoln presents a clear, comprehensive discussion of all the known facts and theories on why, when, where and how North American birds migrate. The author gives complete data about the altitudes birds fly, their spread of flight, orientations, routes, evolutions of these routes and perils of migration. With its many maps and drawings, this should be of infinite value to ornithologists, amateur bird watchers and sportsmen.



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Syracuse 10, N. Y.

The Silent Saboteurs

(From page 11)

K&E SWEDISH INCREMENT BORERS AND FORESTRY INSTRUMENTS

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K&E Forestry Equipment includes the K&E Swedish Increment Borer, made of the finest Swedish steel, K&E Tree Caliper, K&E Swedish Bark Measuring Instrument, K&E Timber Scriber, K&E Forester's Compasses, K&E Topographic Abney Levels, K&E Topographic Tapes and K&E WYTEFACE* Diameter (Tree) Steel Tapes.

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tle is known of its means of spread or of its control. A National Oak Wilt Research Committee is hard at work on the problem. This is a joint industry-government effort. Similar committees on a state-wide basis exist in many of the oak producing states.

Probably one of the most serious tree diseases is the white pine blister rust which was first discovered in New York in 1906. It spread rapidly until by 1915 it constituted a serious threat to all the white pine in the Northeast. The Pacific Northwest became innoculated with the disease in 1921. Control measures on a broad scale were not begun until 1922, but at the present time protection is provided in 32 states in which the white pines, or five-needle pines, are important. Control areas amount to 26 million acres, with some 14 million acres sufficiently covered to permit the reduction of work to a maintenance program. Relaxation of the control program, however, might mean a rapid recrudescence of the epidemic.

Pole blight in the northern Rocky Mountain area threatens the young white pines—the white pines of the future. An active research program is under way to determine both the cause and the most practicable control measures.

In the south the highly important southern pines are subject to brown spot and littleleaf diseases and fusiform rust which might well have very serious consequences on the new forest economy of the area.

Here again, only a few of the most important tree diseases have been mentioned. Among the many others which may assume serious consequences are die-back of birch, and a recently discovered wilt of the red gum. Equally important, however, are the insidious heartrots which although not killing in their effects, greatly reduce the value of the affected trees. Occasional epidemics, such as the blight which practically eliminated the chestnut as a major component of the American timber resource, do strike with dramatic effectiveness. Similarly the relentless march of the Dutch elm disease through the elm-arched roadways and avenues of urban areas caused considerable local concern.

Controls—Much like the slum districts of the metropolitan areas, the ill-kept forest property becomes

a breeding place for destructive elements. Most foresters agree that one of the best preventive measures against forest diseases and destructive insects is the combination of cultural operations and cutting schedules that tend to keep the forest healthy. Removal of diseased trees, those with fire scars or mechanical injuries, and those weakened by suppression and those that are over-ripe help eliminate the breeding places for further disease and insect epidemics. Insects and disease often work closely together.

A tree weakened by disease is easily killed by insect attack, and insect-infested trees likewise are readily susceptible to forest diseases. Heart rots in hardwoods are hastened by fire damage and mechanical injuries. When damaged, infested or infected trees are removed before death it is often possible to recover for the market considerable usable wood that would otherwise be lost, while at the same time eliminating sources of insect and disease spread. A healthy well-managed forest stands the best chance of escaping serious insect and disease damage.

A limited amount of research directed toward silvicultural methods of controlling forest insects and diseases is now being carried on.

For many types of insect and disease problems the only practicable method of control consists of prompt salvage of the affected timber. Salvage operations generally can be carried on at a net profit to the operator, if he can move quickly enough and before deterioration begins. Here, as in most phases of successful forest enterprise, salvage can best be carried on by agencies or companies whose operating plans are sufficiently flexible and who can divert the funds and manpower to meet emergency situations. A major requirement is the existence of roads or the ability to push access roads through to the problem area. An example of this flexibility can be seen in the Pacific Northwest where the cutting plans on the larger industrial forests have been rapidly altered at the present time to speed up the salvage of windthrown and beetle-infested timber.

Another indirect control measure is dependence upon natural parasites and other enemies of forest insects. Normally these tend to maintain a balance in which insect dam-

age is not serious. However, natural balances at best are long-term averages. Other control measures must be developed to avoid economic losses when the pests reach epidemic proportions.

Direct control measures have been greatly improved in recent years with the development of effective insecticides that may be sprayed either from the ground or from airplanes. These have made possible the control of epidemics over large areas, as has been shown in the spruce budworm project of the Northwest.

As in the case of forest fire, however, the best control is an all-out program of prevention—to recognize potential epidemics before they get started. This requires constant vigilance by all landowners and woods workers. Field personnel must be trained to recognize, wherever possible, the signs of insects and disease attack, and to report them promptly so that early action may be taken.

Whose Responsibility?—The question may well be raised as to who should assume responsibility for the early detection, the research, the development of means of control, and the action programs necessary to protect the forest resource from destructive insects and diseases.

The Forest Pest Control Act of 1947 gives recognition to the federal interest and responsibility. It is the policy of the government of the United States, the act declares, "independently and through cooperation with the governments of the states, territories, and possessions, and private timber owners to prevent, retard, control, suppress, or eradicate incipient, potential or emergency outbreaks of destructive insects and diseases on or threatening all forest lands irrespective of ownerships."

However, policy or action by the federal government is far from sufficient to provide the type of protection that is needed. As one industrial leader has expressed the problem: "It looks to me as if industry will have to get busy to do a lot of this work in entomology and pathology for themselves. The stumbling block is—where to find entomologists and pathologists, geneticists, biologists and all the professional men that are required. Someone is going to have to induce more young men in forestry schools to take up these branches of science."

Some of the larger forest industry companies have started to employ their own scientists to combat their

own local insect and disease problems.

Under the authority of the Forest Pest Control Act, former Secretary of Agriculture Charles F. Brannan appointed a group of consultants to assist the Department in developing plans and programs. Chairman of this group is Ernest L. Kolbe, forester, Western Pine Association, mentioned earlier as the sparkplug of the Northwest Forest Pest Action Committee.

Other members are Walter Damtoft, assistant secretary, Champion Paper and Fibre Company; D. C. Everest, of the Marathon Corporation; Fred H. Lang, president, Association of State Foresters; A. H. MacAndrews, professor of entomology, Syracuse University; and Fred W. Rowekamp, city forester, Los Angeles. This group of consultants is no "rubber stamp" committee. It is a wide-awake active group that will not let any federal or state unit or any segment of industry forget its responsibility in the insect and disease prevention and control program. It is unlikely, however, that any group will be inclined to lie down on the job.

The Department of Agriculture is keenly aware of the problem, not only as they affect all forest lands in the United States, but more particularly as they affect the national forests. These publicly-owned forests, administered by the greatest single forestry organization in the



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world should be models so far as all phases of management are concerned. That they fall somewhat short of the ideal is of considerable concern to the leaders of the Forest Service. In the case of insects and diseases, for example, they know that their over-mature stands are constant prey to destructive agencies, and they are doing their utmost to obtain the necessary funds to develop timber access roads into such areas before the "normal" losses assume proportions to be written in red ink.

Similarly, with the Department of the Interior; the foresters there want to move faster than they have been able to do so far in speeding the salvage of dead and dying trees and in developing cooperating programs with adjacent timberland owners.

A statement by Mr. Kolbe points up the problem as he sees it:

"The largest and most critical forest problem in the country today is that of tree killing insects and diseases. In the West much old-growth virgin timber on public land is threatened. The importance of pest problems is also indicated by timber losses running into many billions of board feet in several states. On top of this there are millions of acres of fine timberland infected with blister rust, blights and other diseases. It is hard to visualize the magnitude of these losses but they are huge and increasing.

"These facts are of a character to cause alarm to foresters, tree farmers and conservation leaders of all regions where the importance of the forest resource is known. The public, too, has shown interest in the problem, which, of course, affects everyone.

"Some way must be found to save our forests from tree killing insects and diseases. That much is clear.

"Six consultants were appointed to advise the Department of Agriculture in giving direction to a sound program to hold the pests in check. Already, the consultants have found that newly organized cooperative detection and control programs of private, state and federal groups are doing a job. These programs have made sufficient inroads on forest pests to warrant their continuation and expansion. Likewise, the consultants found that a great deal more research needs

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to be organized to give needed answers on how best to tackle outbreaks and how to prevent them. The problems concerned with forest pests are particularly difficult, their solution is warranted by the tremendous forest values at stake. Such forest values are vital to the economy of great sections of our country."

To the extent that more federal funds and better federal programs are needed to launch really effective measures of detection, research, prevention and control, the support of the forest industries, the states, and the research institutions can be counted upon.

As has been already discussed, the pest control committees of the Northwest, the National Oak Wilt Advisory Committee, and the various

It appears that private landowners, particularly the larger ones in the important timbered areas are more than ready, and will be kept alerted to their responsibilities, to spend what funds are necessary to protect their timber investments.

The question is how ready and willing is the federal government to do its part in the protection of the federal lands and in the over-all co-operative programs. It can be accepted without question that the land management agencies and the service agencies, such as the Bureau of Entomology and Plant Quarantine, and the Bureau of Plant Industry, Soils and Agricultural Engineering are eager to do their share. But what about the Congress? For it must provide the funds for the necessary expansion work to assure:

- (1) Early detection of destructive insects and diseases.
- (2) Research into the causes of rise and fall in the incidence of pests, methods of spread, means of preventing spread, etc.
- (3) Prompt marshalling of funds, men, and equipment to bring incipient epidemics under control before they assume devastating proportions.

The new Congress rightly feels that it has an obligation to reduce federal government expenditures. There are few persons who will not agree that many federal expenses could be reduced or even eliminated without either immediate or future dire consequences; some of these less essential expenditures may be found within the land management agencies themselves. If so, these agencies should be among the first to suggest diversion of emphasis from minor activities to those which are of prime importance.

It is suggested that the case for the land management agencies be predicated on the prime importance of the following: 1) control of forest fires, insects, and diseases; 2) intensification of forest management through provisions for access roads and timber sales administration. All other activities not contributing directly or indirectly to this simple program obviously rank in minor importance.

It is confidently believed that any federal land manager, or any other proponent of expanded protection of the forest who will put first things first will have little difficulty in convincing the Congress and the American people of the sincerity and validity of his request.

WILLIAM K. BEICHLER, 50, former state forester of North Carolina, died January 5 in Raleigh. A graduate of Pennsylvania State College's School of Forestry in 1925, Mr. Beichler succeeded J. S. Holmes as North Carolina's chief forester when Holmes retired in 1945. Mr. Beichler served as state forester until November 1951. Prior to becoming state forester he served as an assistant state forester from 1941 to 1945, as a district forester for the North Carolina Forest Service in Asheville and also had worked with the Maryland Forest Service and the U. S. Forest Service in Idaho. More recently, Mr. Beichler was engaged in making a special study of Tennessee's needs for the prevention and suppression of forest fires. His services had been engaged by the Tennessee Citizens Committee for Forest Protection.

state committees and associations have a tremendous job to do; and in many cases they are doing it. For example, the spruce budworm project in the Northwest since 1949 has been cooperatively financed by federal, state and private groups.

The answer lies in such cooperative efforts. Pest control is not a problem for solution by the federal government alone on its lands, nor by states on their lands, nor by private companies on their lands. Nor is it one to be solved by the federal government for all lands. Police authority to enforce participation by recalcitrant individuals in most instances lies with the states; but landowners with important timber values at stake are unlikely to ignore the advantages and the economies of cooperative endeavor.

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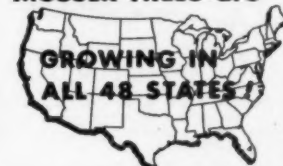
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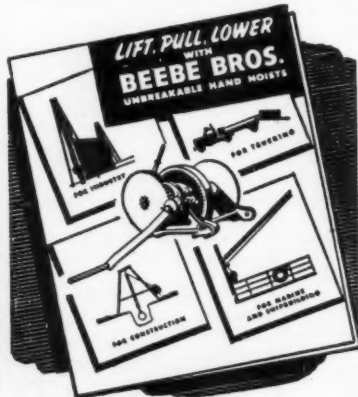
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Besley Named

(From page 4)

a long-time active supporter of The American Forestry Association. He is a member of the Society of American Foresters, Society of Sigma Xi, former chairman of the Vancouver Section, Canadian Institute of Forestry; vice president of the Association of British Columbia Foresters; and a director of the British Columbia Branch of the Canadian Forestry Association.

The author of numerous forestry publications, Dean Besley sees the dynamic pattern of forestry achievement now being set by federal, state and private agencies as closely allied programs. He is an advocate of the "cooperative approach" in forestry enterprise and believes that The American Forestry Association should work unceasingly for closer "working partnership" in all phases of forestry endeavor.

Your Shade Trees

(From page 24)

a foot or less has killed trees within a few years. Also, the application of coal tar to the bark of trees to kill or check borers is not advised since such a material will plug the lenticels, or breathing pores, in the bark and exclude air from the active growing tissue beneath the bark.

Serious damage to the roots of a tree is caused when an excess amount of soil is packed around the base of a tree. The roots of a tree develop in accordance with existing soil conditions. When such factors as moisture content, available air, and the activity of the soil micro-organisms are altered it means trouble for the tree. Roots buried under excess quantities of soil lack the normal supply of air to complete oxidation of organic compounds. This results in the formation of toxins. These toxins react unfavorably to root activity with disastrous results to the health of the tree.

The practice of burning leaves near the trees from which they have fallen may injure both the root system as well as the tree itself. If the fire is hot enough the tree can easily be damaged without the bark being scorched. It will be evident in a year or so when the bark begins to slough off. If leaves are raked on a fire until a sizable bed of ashes has been accumulated it is quite possible that even the roots may be baked and killed, especially in the case of a shallow-rooted tree.

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AFA's Forest Clinic

(From page 31)

vae in trees on which the bark has been thinned by woodpeckers are extensively attacked by insect parasites.

Very low temperatures are effective in the control of beetle infestations because all the beetles over a large area are affected. A sudden hard freeze after a period of mild temperatures adversely affects them. The warm temperature changes the pupae to the larvae stage and when the temperature drops to about -32° F. all of the larvae are killed.

Artificial Control: The Engelmann spruce beetle is effectively controlled by a solution of orthodichlor-

obenzene in fuel oil, eight pounds of orthodichlorobenzene (not less than 50 percent ortho isomer) in five gallons, or ethylene dibromide in fuel oil, one and a half pounds in five gallons of oil. Trees may be treated in a standing position if the beetle infestation does not exceed 30 feet in height. Under forest conditions, the insecticide may be applied to such trees with bucket pumps equipped with approximately 20 feet of hose, a six-foot extension rod, and a No. 6 solid stream nozzle. The trees are treated on all sides until the insecticide starts to flow from the bark. When the height of infestation exceeds 30 feet and the top has not been worked by woodpeckers, it may be advisable to fell the tree before treating it.

A water emulsion of ethylene dibromide containing three pounds of the fumigant has been used effectively, experimentally, in controlling the Engelmann spruce beetle. Water emulsions offer a great saving in transportation costs over oil solutions since only the concentrate need be transported into the woods and then mixed with water, which is always available in spruce forests.

Since the beetle has a tendency to attack windthrown trees, the use of freshly-felled trees as trap trees to attract them where they may easily be destroyed, is being tested as a control measure.

Woodland Management

(From page 23)

hauling, was about \$1.25 per tree.

An advertisement in a local newspaper soon turned up a buyer. He wanted material to erect three rustic gateways of unpeeled, durable wood. For each gateway he needed two eight-foot posts, six to eight inches in diameter at the top; and three to four slender rails 16 to 18 feet long, with little taper.

Twelve of the treated trees filled the order. The plantation owner delivered them for \$4 per tree.

Cuts from the butt ends provided the posts, and the rails came out of the top pieces. Some pieces were left over, but they were large enough to use for fence posts and were not wasted.

The plantation owner feared that preparing the posts and fitting the rails might expose some sapwood that had not absorbed the preservative and might be liable to decay; so he checked on this operation. Tests showed that the preservative was present in the sapwood of all exposed surfaces.

Later he sold almost all the other treated trees for \$4 or \$5 per tree. They were put to use as rails, flag poles, and farm utility poles.

Although such specialty markets cannot absorb large quantities of material, they sometimes offer a better price per cubic foot of wood than the seller could get from more conventional markets.

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Shussbooming

(From page 13)

snow-walled canyons, sometimes more than 30 feet deep.

The high slopes of the Cascade Mountains of Oregon and Washington are blessed with a long snow season. Winter storms sweeping in from the nearby Pacific ocean bury the Mt. Hood ski area in from ten to 30 feet of snow which usually provides skiing from late October until June. During stormy weather when the open slopes of the mountain are blizzard-swept, skiers head for the many protected trails in the forests below timberline. In good weather the chair lift is worked to capacity and then some, by enthusiastic shussboomers who enjoy the open snow fields.

Mt. Hood, like every other recreation area, was comparatively inactive during World War II. The Lodge and facilities were closed and only a few skiers toured the wintry trails. Since 1945 new developments and new enthusiasm have taken over. Last winter the Forest Service counted about 109,000 people at Timberline Lodge during the season. Nearly 80,000 were at Government Camp located on the Wapinitia Pass highway over 2000 feet lower on the slope of the mountain. Another 2300 people from the Hood River Valley enjoyed the limited development on the North side of Mt. Hood.

The Government Camp-Timberline area is under the direct jurisdiction of Jim Langdon of the Zig Zag ranger district. Forest Service recreation director Jim Ralph is on constant duty at Summit Ranger Station near Government Camp and a couple of additional Forest Service men are usually assigned to help with the many duties on weekends.

The Service gives assistance to the Mt. Hood Ski Patrol, constantly wards against avalanches in some danger spots and cooperates generally in numerous ways with the skiing public and with resort operators and home owners.

Mt. Hood is one of the world's finest natural winter playgrounds but Mother Nature couldn't have handled the job of providing the abundance of good wholesome outdoor recreation that is now available to the thousands who enjoy the snow sports without a terrific assist from Uncle Sam.

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What's NEWS across the nation

THE CITIZENS COMMITTEE FOR THE REORGANIZATION of the Executive Branch of the Government, inactive since June, 1952, resumed operations on January 20th under the leadership of former President Herbert Hoover. Three dominant reasons were recently cited by Mr. Hoover for the resumption of the committee. They are: (1) that the government surely needs reorganizing if "we are to have real economy and efficiency; (2) President Eisenhower has declared his determination to continue the work of reorganizing the executive arms; (3) the work of the Citizens Committee is a 'great contribution to public understanding of our government and its needs of fundamental changes in its structure'."

A RESEARCH GRANT OF \$2500 HAS BEEN GIVEN THE OREGON State college school of forestry for use in development of a practical system for rating fire danger in slash burning and other logging operations. The grant is the second in two years to be received from Booth-Kelly Lumber company of Springfield for research on forest fire prevention. The first project, completed last month, was on ways of reducing the number of forest fires started in gasoline power-saw operations.

WEATHER CONDITIONS CONSPIRED TO MAKE THE MOVEMENTS OF WILD ducks and geese gradual and spotty during the waterfowl hunting season which closed throughout the nation last month, according to Albert M. Day, director of the Department of the Interior's Fish and Wildlife Service. "Not at all spectacular" was the comment of Director Day in describing fall migrations. "Weather, rather than any dearth of birds was responsible."

THE SALE OF DUCK STAMPS DURING THE FISCAL YEAR ended June 30, 1952, reached an all-time high, the National Wildlife Federation reports. A total of 2,167,767 stamps was sold in the United States. Total revenue on stamps sold amounted to \$4,335,534, which is turned over to the Fish and Wildlife Service for establishment, development and maintenance of a waterfowl refuge program.

GROWTH RATE, FORM, WOOD QUALITIES AND PEST RESISTANCE of Southern forest trees can be improved considerably by scientific breeding and selection in the opinion of members of the Committee on Southern Forest Tree Improvement which just concluded a successful two-day meeting in Atlanta, Georgia. This open, south-wide meeting of 1953 was the first planned and directed by the Committee which had its beginning during a similar meeting called two years ago by the U. S. Forest Service in an attempt to coordinate existing regional efforts in forest management research and to stimulate further research along needed lines without overlapping and wasted effort.

A PORTSMOUTH, NEW HAMPSHIRE OUTDOOR EDITOR, Hal Pierson, informed his readers several weeks ago that "New Hampshire sportsmen—resident and non-resident—were robbed of \$4,000 this week when the Governor and Council authorized the expenditure of that amount out of Fish and Game Department surplus funds for the purpose of having a Granite State float in the inaugural parade of President Dwight D. Eisenhower. (over)

THE IDEA WAS SPAWNED FROM A SUGGESTION made by Governor-elect Hugh Gregg. The incoming governor's platform included the promotion of the recreational facilities of New Hampshire to attract the out-of-state dollar. This is fine. But recreational opportunities in New Hampshire are extensive and can well be promoted to the economic advantage of the people within the state—but not with \$4,000 of Fish and Game funds for a strictly political gesture."

"INSECTS," THE 1952 YEARBOOK OF AGRICULTURE, is probably the most comprehensive report on this subject ever published. The book contains 31 chapters covering such subjects as the economic importance of insects, development of economic entomology and insect control. The book also includes 72 full-color plates, eight black and white photographs and many line drawings. The book has 952 pages and sells for \$2.50 a copy.

CARL D. SHOEMAKER, 70, NOTED FIGHTER FOR CONSERVATION of wildlife and natural resources for two score years, retired on January 1 as conservation director of the National Wildlife Federation. Mr. Shoemaker worked with J. N. Darling, noted cartoonist, and others in organizing the National Wildlife Federation in 1936. He first became identified with the wildlife conservation movement in 1915 when he became head of the Oregon Game and Fish Commission. Since that time he has been in the forefront of many conservation battles.

CENTERED AROUND THE 38TH ANNUAL MEETING OF THE SOUTHERN Pine Association, the SPA machinery and equipment exposition on April 8-10 will feature displays of more than a million dollars worth of equipment and machinery used in manufacturing, logging and mill work. Most of the meetings of the Association will be held at the New Orleans Municipal Auditorium, site of the machinery show. The convention will have mechanical progress as its theme.

ONE OF THE GREATEST STEPS EVER TAKEN in the timber industry in Ohio is the adoption by timber buyers and sawmill operators of a new forest policy, which, according to the Ohio Forestry Association, is being accepted almost unanimously throughout the industry where it has been presented. In adopting the Forest Policy, members agree to a five-point program of cooperation with professional foresters, timber industry members and landowners in "learning and practicing forestry to the best interests of each type and condition of forest being harvested; to strive toward better timber utilization; to discourage destructive forest grazing; and to protect young timber in cutting and logging operations."

THE NEED FOR MORE AIRPLANES IN THE STATE'S FOREST fire detection system was stressed last month at the initial meeting of the Louisiana Forestry Association's forest fire investigation committee in Alexandria. B. A. Ryan, chairman of the committee, said, "although our report is far from complete, it is evident already that our final recommendations will stress the need for a more intensive air detection program."

WEYERHAEUSER TIMBER COMPANY HAS ANNOUNCED IT expects to plant approximately three million Douglasfir seedlings this winter on its chain of tree farms with a third of them going to the company's Vail-McDonald operation. Supervising the planting of approximately one million one and two-year-old trees on the Vail and McDonald tree farms is James W. Church, Weyerhaeuser branch forester. The million seedlings will be split evenly between the two tree farms, according to Church.

HOGS AND TAXES ARE BLAMED BY J. H. KITCHENS, Jr., executive secretary of the Louisiana Forestry Association, for pine seedling demand falling below the supply. Pointing out that the Louisiana Forestry Commission has succeeded in producing more pine seedlings than ever before in history, the executive secretary said it was "unfortunate that the hog and tax situation discourages many landowners from planting more seedlings."

AMONG OUR AUTHORS

Albert G. Hall (*The Silent Saboteurs*) is a forestry relations counsel and consulting forester with offices in Washington, D. C. A former associate editor of *AMERICAN FORESTS*, he also has served as editor of *THE JOURNAL OF FORESTRY*, publication of the Society of American Foresters, and currently is editor of *WHAT'S HAPPENING IN FORESTRY*, a semi-monthly news letter.

Ray Atkeson (*Shussbooming on Mt. Hood*) is one of the nation's outstanding outdoor photographers. An Oregonian, his work has appeared on the covers and inside of many leading "slick" magazines. **G. H. Collingwood** (*Traditional GOP Land Policies*) is a veteran observer of the capital scene and is a frequent contributor to *AMERICAN FORESTS*. He conducted this magazine's Washington Lookout column during 1951 and 1952. **Laurence F. Lee** (*A Way Back to Land Freedom*) is president of the U. S. Chamber of Commerce. A New Mexican by birth and an insurance man by way of the law business, he is president of the Peninsular Life Insurance Company, Jacksonville, Florida, and of the Occidental Life Insurance Company, Raleigh, North Carolina.

R. D. Burroughs (*The Big Wheels*) joined the staff of the Game Division of the Michigan Department of Conservation in 1937 and held a number of administrative positions in this Division until 1949. He then transferred to the Education Division of the Conservation Department.

Robert S. Monahan (*A Woodsman in Washington*) has been Dartmouth College forester and manager of college outing properties for the past five years, following a 15-year career in the U. S. Forest Service, including seven years in the office of the Chief Forester. He writes about Sherman Adams from close personal acquaintance.

Cleveland van Dresser (*Abuses Under the Mining Laws*) is a free lance writer whose byline is familiar to the readers of many outdoor and news feature magazines.

Gib Crockett, who did the mining laws cartoon exclusively for *AMERICAN FORESTS*, has been a cartoonist for *THE WASHINGTON (D. C.) STAR* newspaper for 20 years. One of the nation's top cartoonists, his syndicated drawings appear in newspapers all over the country.

C. L. Massey (*AFA's Forest Clinic*) is an entomologist, bureau of entomology and plant quarantine, agricultural research administration, United States Department of Agriculture.



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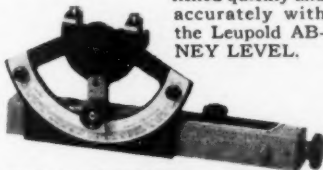


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Photos used on this page will be of unusual rather than esthetic or descriptive qualities and subject matter will be restricted to scenes, events, objects or persons related to the use, enjoyment or unique aspects of our renewable natural resources. For each picture selected AMERICAN FORESTS will pay \$10.



Here's how loggers and lumbermen go to work at the Ba Sian logging station in Formosa. Just sit on a pallet and have yourself a ride—3000 feet up. This photo was submitted by Nelson H. Fritz, who is working in Formosa for an engineering firm



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